

GENERAL VIEW FROM EAST.

THIRTY-FIFTH ANNUAL CATALOGUE

OF THE

Officers, Students and Graduates

OF THE

KANSAS STATE

Agricultural College

MANHATTAN.



1897-'98.



J. S. PARKS, STATE PRINTER,
TOPEKA, KAN.
1898.

Terms and Vacations.

Fall Term, 1898, Fourteen Weeks.

WEDNESDAY, SEPTEMBER 7.—Examination for admission, at 9 A. M.
THURSDAY, SEPTEMBER 8.—College year begins.
SATURDAY, OCTOBER 22.—Examination.
SATURDAY, DECEMBER 3.—Annual exhibition of the Alpha Beta Society.
FRIDAY AND SATURDAY, DECEMBER 16, 17.—Examination at close of fall term.
DECEMBER 18 TO JANUARY 2.—Winter vacation.

Winter Term, 1899, Twelve Weeks.

MONDAY, JANUARY 2.—Examination for admission, at 9 A. M.
TUESDAY, JANUARY 3.—Winter term begins.
SATURDAY, JANUARY 28.—Annual exhibition of the Hamilton Society.
SATURDAY, FEBRUARY 11.—Examination.
SATURDAY, MARCH 11.—Annual exhibition of the Webster Society.
FRIDAY AND SATURDAY, MARCH 24, 25.—Examination at close of winter term.

Spring Term, 1899, Ten Weeks.

WEDNESDAY, MARCH 29.—Spring term begins.
SATURDAY, APRIL 22.—Annual exhibition of the Ionian Society.
SATURDAY, APRIL 29.—Examination.
TUESDAY AND WEDNESDAY, JUNE 6, 7.—Examination at close of year.
JUNE 4 TO 8.—Exercises of Commencement week.
THURSDAY, JUNE 8, at 10:30 A. M.—Commencement.
JUNE 9 TO SEPTEMBER 6.—Summer vacation.

Fall Term, 1899.

WEDNESDAY, SEPTEMBER 6.—Examination for admission, at 9 A. M.
THURSDAY, SEPTEMBER 7.—College year begins.

Board of Regents.

HON. J. N. LIMBOCKER (1901)*, *President.*

Manhattan, Riley county.

HON. MRS. SUSAN J. ST. JOHN (1901), *Vice-President,*

Olathe, Johnson county.

HON. C. B. HOFFMAN (1901), *Treasurer,*

Enterprise, Dickinson county.

HON. T. J. HUDSON (1899), *Loan Commissioner,*

Fredonia, Wilson county.

HON. GEORGE M. MUNGER (1901),

Eureka, Greenwood county.

HON. WILLIAM H. PHIPPS (1899),

Abilene, Dickinson county.

HON. E. B. COWGILL (1899),

Topeka, Shawnee county.

PRES. THOS. E. WILL (*ex officio*), *Secretary,*

I. D. GRAHAM, *Assistant Secretary,*

Manhattan.

* Term expires.

Board of Instruction.

FACULTY.

THOMAS ELMER WILL, A. M. (*Harvard*), PRESIDENT,
Professor of Economics and Philosophy.

IRA D. GRAHAM, A. M. (*Eureka*), SECRETARY,
Professor of Bookkeeping, Commercial Law, and Accounts.

HENRY M. COTTRELL, M. S. (*Kansas State Agricultural College*),
Professor of Agriculture, Superintendent of Farm.

ALBERT S. HITCHCOCK, M. S. (*Iowa State Agricultural College*),
Professor of Botany.

JULIUS T. WILLARD, M. S. (*Kansas State Agricultural College*),
Professor of Applied Chemistry.

GEORGE F. WEIDA, PH. D. (*Johns Hopkins*),
Professor of Pure Chemistry.

EDWARD W. BEMIS, PH. D. (*Johns Hopkins*),
Professor of Economic Science.

OSCAR EUGENE OLIN, A. M. (*Kansas State Agricultural College*),
Professor of English Language and Literature.

FRANK PARSONS, B. C. E. (*Cornell University*),
Professor of History and Political Science.

E. E. FAVILLE, M. S. A. (*Iowa State Agricultural College*),
Professor of Horticulture and Entomology, Superintendent of Orchards and Gardens.

MRS. HELEN CAMPBELL,
Professor of Household Economics, Superintendent of Domestic Science Departments.
(Until April 1, 1898.)

JOHN D. WALTERS, M. S. (*Kansas State Agricultural College*),
Professor of Industrial Art and Designing.

MISS MARY F. WINSTON, PH. D. (*Goettingen*),
Professor of Mathematics.

OZNI P. HOOD, M. S. (*Rose Polytechnic*),
Professor of Mechanics and Engineering, Superintendent of Workshops.

RALPH HARRISON, First Lieutenant 2d U. S. Cavalry (*West Point*),
Professor of Military Science and Tactics.

ALEXANDER B. BROWN (*Boston Music School*), A. M. (*Olivet*),
Professor of Music.

FREDRIC AUGUSTUS METCALF, O. M. (*Emerson College of Oratory*),
Professor of Oratory.

ERNEST R. NICHOLS, D. B. (*Iowa State Normal*), B. S., A. M. (*State University of Iowa*),
Professor of Physics.

PAUL FISCHER, B. AGR., M. V. D. (*Ohio State University*),
Professor of Veterinary Science.

CHARLES S. DAVIS (*Kansas State Normal School*),
Superintendent of Printing.

MISS HARRIET HOWELL (*Pratt Institute*),
Superintendent of Sewing.

MISS ALICE RUPP,
Instructor in English.

MISS JOSEPHINE C. HARPER,
Instructor in Mathematics.

MISS HELEN J. WESCOTT,
Librarian.

NOTE.—Departments are arranged in alphabetical order.

ASSISTANTS AND FOREMEN.

WILLIAM L. HOUSE,
Foreman of Carpenter Shop.

BERTHA S. KIMBALL, M. S.,
Assistant in Drawing.

CON MORRISON BUCK, B. S.,
Assistant in Graphics.

WILLIAM BAXTER,
Foreman of Greenhouse.

CHARLOTTE J. SHORT, M. S.,
Assistant in Household Economics.

MRS. MARY L. HANSON,
Assistant in Department of Household Economics.

ENOS HARROLD,
Foreman of Iron Shop.

MARGARET J. MINIS,
Assistant Librarian.

THOMAS E. LAYDEN, B. S.,
Assistant in Mechanical Department.

CHARLES W. PAPE, B. S.,
Assistant Curator of Museum.

LORENA M. HELDER, M. T., B. S.,
Assistant in Music.

Mrs. WINNIFREDE W. METCALF,
Assistant in Oratory.

HELEN H. HIGH,
Assistant in Sewing.

NOTE.—Departments are arranged in alphabetical order.

STUDENT ASSISTANTS.

(For 1897-'98.)

WILLIAM ANDERSON, History and Political Science.
R. H. BROWN, Music.
E. C. BUTTERFIELD, Horticulture.
R. W. CLOTHIER, B. S., Chemistry.
FLORENCE CORBETT, B. S., Botany.
PHILIP FOX, B. S., Free-hand Graphics.
E. C. GASSER, Ironwork.
HORTENSIA HARMAN, B. S. Oratory.
C. P. HARTLEY, United States History, Arithmetic, Horticulture.
ADA INGMAN, Library.
R. S. KELLOGG, B. S., Mathematics, Bookkeeping, History, Political Science.
A. T. KINSLEY, Chemistry.
SCHUYLER NICHOLS, Horticulture.
F. C. NICHOLSON, Ironwork.
MARY AUGUSTA NORTON, Free-hand Drawing.
J. M. PIERCE, Surveying.
R. H. POND, Botany, Chemistry, English.
H. F. ROBERTS, A. B., German.
M. W. SANDERSON, Surveying.
MAY SECREST, B. S., Library, United States History.
S. R. VINCENT, B. S., Algebra, Arithmetic, Mechanics.
J. M. WESTGATE, B. S., Algebra, Arithmetic, Botany, United States History.
A. D. WHIPPLE, Horticulture, Library.
H. N. WHITFORD, B. S., Algebra.

Other Officers.

WILLIAM CANFIELD LEE, A. B.,

Private Secretary to President.

LORENA E. CLEMONS, B. S.,

Clerk in Secretary's Office.

JACOB LUND, M. S.,

Engineer.

EUGENE EMRICK,

Janitor.

Experiment Station.

Council.

PRESIDENT WILL, Chairman, *ex officio*.

PROFESSOR COTTRELL, Agriculture.

PROFESSOR HITCHCOCK, Botany.

PROFESSOR WILLARD, Chemistry.

PROFESSOR FAVILLE, Horticulture.

PROFESSOR FISCHER, Veterinary Science.

PROFESSOR GRAHAM, Secretary.

Assistants.

F. C. BURTIS, M. S., Field and Feeding Experiments.

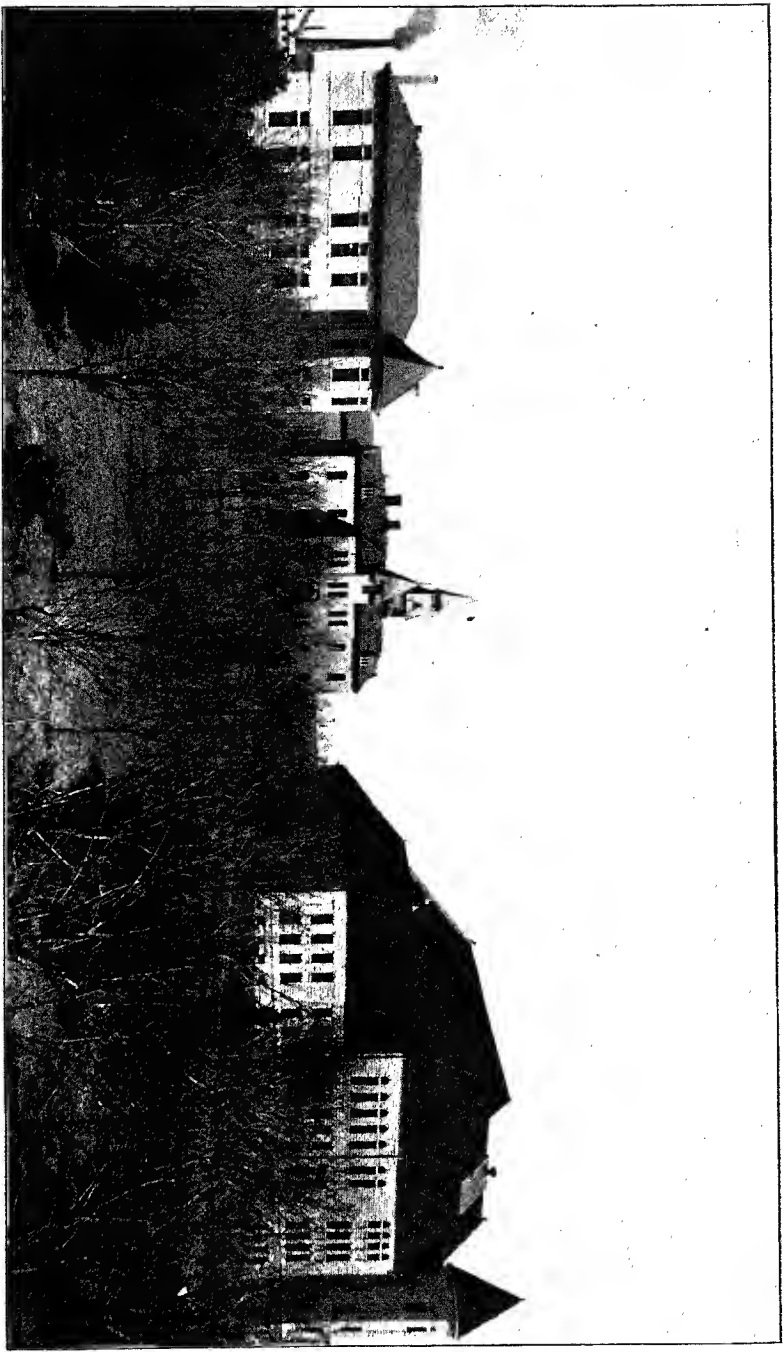
D. H. OTIS, B. S., Dairy.

GEORGE L. CLOTHIER, B. S., Botany.

PERCIVAL J. PARROTT, A. B., Entomology.

WM. L. HALL, Horticulture.

NOTE.—Departments are arranged in alphabetical order.



DOMESTIC SCIENCE HALL.

MAIN BUILDING.

LIBRARY HALL.

Students.

POSTGRADUATES.

NOTE.—Studies pursued during the year printed in italic.

CANDIDATES FOR MASTER'S DEGREE, 1898.

- Con Morrison Buck, B. S. '96 *Architecture and Designing, Physics.*
Oskaloosa, Jefferson county.
- George Lemon Clothier, B. S. '92. *Botany, Chemistry, Horticulture.*
Vera, Wabaunsee county.
- Florence Ruth Corbett, B. S. '95. *Household Economics, Botany, De-*
Manhattan, Riley county. *signing.*
- William Henry Moore, B. S. '94. *Horticulture, Botany, Entomology.*
Manhattan, Riley county.
- Charles Wesley Pape, B. S. '95. *Zoology, Architecture and Designing,*
Manhattan, Riley county. *Geology.*
- Herbert F. Roberts, A. B. '91 (K. S. U.), LL. B. '93 (N. W. U.), *Botany, Horti-*
Manhattan, Riley county. *culture, Chemistry, Drawing.*
- Samuel Robert Vincent, B. S. '94. *Physics, Engineering.*
Orie, Oklahoma.

NON-RESIDENT.

- George E. Rose. *Horticulture, Entomology.*
Kansas City, Wyandotte county.
- Mrs. Ava Hamill Tillotson, B. S. '92. *Household Economics, Zoology.*
Hill City, Graham county.
- Charles Henry Thompson, B. S. '93. *Botany, Horticulture.*
Columbia, Missouri.
- Joseph B. Thoburn, B. S. '93. *Horticulture, Botany.*
Denver, Colorado.

IN COURSE LEADING TO MASTER'S DEGREE.

- Judson H. Criswell, B. S. '89. *Agriculture, Botany.*
Manhattan, Riley county.
- Robert Waitman Clothier, B. S. '97. *Chemistry, Agriculture, Physics,*
Vera, Wabaunsee county. *Mathematics, German.*
- Philip Fox, B. S. '97. *Architecture and Designing, Physics,*
Manhattan, Riley county. *Mathematics, Oratory, Chemistry.*
- Charles Pinckney Hartley, B. S. '92. *Horticulture, Botany, Entomology.*
Manhattan, Riley county.
- Jesse Baker Norton, B. S. '97. *Entomology, Designing, Botany, Ger-*
Manhattan, Riley county. *man.*
- May Secrest, B. S. '92. *Household Economics, Chemistry,*
Randolph, Riley county. *German.*
- John Minton Westgate, B. S. '97. *Botany, Chemistry, Drawing.*
Westgate, Geary county.
- Harry N. Whitford, B. S. '90. *Botany, Horticulture.*
Manhattan, Riley county.

NON-RESIDENT.

- Roger William Bishoff, B. S. '97..... *Economics, Horticulture.*
Eudora, Douglas county.
- Albert Dickens, B. S. '93..... *Economics, Horticulture.*
Bushton, Rice county.
- Clay Berkey Ingman, B.S. '97..... *Agriculture, Horticulture, Entomol-
ogy.*
Barnes, Washington county.
- John James Johnson, B.S. '95..... *Chemistry, Horticulture.*
St. Louis, Missouri.
- Frederick Hugo Meyer, B.S. '97..... *Horticulture, Entomology.*
Menager, (Leavenworth county.)
- John Bitting Smith Norton, B.S. '96.... *Botany, Horticulture.*
St. Louis, Missouri.
- James Francis Odle, B.S. '94..... *Agriculture, Chemistry, Physics.*
Monaca, Pennsylvania.
- Charles Edwin Pincomb, B.S. '96..... *Veterinary Science, Agriculture.*
Hector, Johnson county.
- Victor Irvin Sandt, B.S. '94..... *Architecture and Designing, Mathe-
matics, Geology.*
Home, Marshall county.

IN ADVANCED WORK NOT LEADING TO A DEGREE.

- Mary C. Bower, B.S. '83..... *German.*
Manhattan, Riley county.
- Clara Francelia Castle, B.S. '94, M.S. '97.. *Household Economics.*
Manhattan, Riley county.
- Lorena Estella Clemons, B. S. '94..... *Mathematics.*
Manhattan, Riley county.
- Charles Francis Doane, B. S. '96..... *Agriculture.*
Milwaukee, Wisconsin.
- Samuel Dolby, B.S. '97..... *General History, Oratory.*
Longford, Clay county.
- Martha Fox, B.S. '97..... *Drawing, Mathematics.*
Manhattan, Riley county.
- Phoebe Ellen Haines, B.S. '83, M.S. '87.. *Physical Culture, Oratory, Sewing.*
Manhattan, Riley county.
- George Clifton Hall, B.S. '96..... *Law.*
Manhattan, Riley county.
- Hortensia (Harman) Patten, B.S. '95... *Household Economics, Literature,
Oratory.*
Sycamore, Illinois.
- Mary Frances Burgoyne Harman, B.S. '93, *Drawing.*
Olathe, Johnson county.
- Ivy Frances Harner, B.S. '93, M.S. '97.. *Household Economics, Bacteriology,
Literature.*
Ruston, Louisiana.
- Amy Myrtle Harrington, B.S. '91..... *Oratory.*
Manhattan, Riley county.
- Mary Eliza Haulenbeck, B.S. '97..... *Oratory, Dramatic Art.*
Manhattan, Riley county.
- Helen H. High, '95 (Armour Institute).. *Drawing, Music.*
Manhattan, Riley county.
- Myrtle Hattie Hood, B.S. '97..... *Oratory.*
Manhattan, Riley county.
- Winifred Anna Houghton, B.S. '97..... *Oratory.*
Manhattan, Riley county.

- Rev. William P. James, A.B. '90 (Highland University), *Oratory*.
Manhattan, Riley county.
- Royal S. Kellogg, B.S. '96.....*Mathematics, Economics, Oratory*,
Fay, Russell county. *German*.
- Edith Lynette Lantz, B.S. '96.....*Chemistry of Foods*.
Manhattan, Riley county.
- Sue Long, B.S. '96.....*General History, English Literature*.
Manhattan, Riley county.
- Oliver Ezra Noble, B.S. '97.....*Economics, Drafting*.
Manhattan, Riley county.
- Ellen Elizabeth Norton, B.S. '96.....*Household Economics, Botany, Liter-*
Manhattan, Riley county. *ature*.
- Mary Augusta Norton, B.S. '97.....*German, Drawing*.
Manhattan, Riley county.
- Lisle Willets Pursel, B.S. '96.....*Chemistry*.
Manhattan, Riley county.
- Howard Newton Rhodes, B.S. '96.....*Mathematics*.
Manhattan, Riley county.
- Alice Myrtle Shofe, B.S. '97.....*English Literature, Botany, Music*.
Manhattan, Riley county.
- Charlotte Jane Short, B.S. '91, M.S. '93, *Drawing, Music*.
Manhattan, Riley county.
- Ora Gertrude Yenawine, B.S. '95.....*Household Economics, Chemistry*.
Manhattan, Riley county.

NON-RESIDENT.

- Laura Sarah (McKeen) Smith, B.S. '95..*Drawing*.
Russell, Russell county.

FOURTH YEAR.

<i>Name.</i>	<i>Post-office and County (or State).</i>
Emory Sherwood Adams,	Manhattan, Riley.
Joshua William Adams,	Marvin, Phillips.
Samuel John Adams,	Marvin, Phillips.
Thomas Walter Allison,	Florence, Marion.
William Anderson,	Cleburne, (Pottawatomie.)
Jessie Geneva Bayless,	Yates Center, Woodson.
John Harold Blachly,	Manhattan, Riley.
Hope Brady,	Manhattan, Riley.
Robert Henry Brown,	Manhattan, Riley.
Earl Carver Butterfield,	Hull, Marshall.
John Alfred Conover,	Sabetha, Nemaha.
Minnie Laura Copeland,	Quenemo, Osage.
Willet Ranson Correll,	Manhattan, Riley.
Lucy Maria Cottrell,	Wabaunsee, Wabaunsee.
George Retilley Crawford,	Manhattan, Riley.
Anna Magdalena Dahl,	Webber, Jewell.
Inga Josephine Dahl,	Webber, Jewell.
Cassie Belle Dille,	Edgerton, Johnson.
Emma Phillipine Doll,	Larned, Pawnee.
Cora Elizabeth Ewalt,	Manhattan, Riley.
Guy Francis Farley,	Melvern, Osage.
Josephine Finley,	Randolph, Riley.

<i>Name.</i>	<i>Post-office and County (or State).</i>
Mary Finley,	Randolph, Riley.
Arthur Lorenzo Frowe,	Louisville, Pottawatomie.
William Logan Hall,	Anthony, Harper.
Anna Viola Hanson,	Manhattan, Riley.
Walter Eugene Hardy,	Manhattan, Riley.
James Madison Harvey,	Junction City, (Riley.)
Emmett Vivian Hoffman,	Enterprise, Dickinson.
Guy Dudley Hulett,	Edgerton, Johnson.
Ada Ingman,	Barnes, Washington.
Bertha Ingman,	Barnes, Washington.
Ary Cordelia Johnson,	Success, Russell.
John Martin Kessler,	Topeka, Shawnee.
Charles Percy King,	Ogama, <i>Arkansas</i> .
Bessie May Locke,	Manhattan, Riley.
Olive Long,	Manhattan, Riley.
William Andrew McCullough,	Delavan, Morris.
Inez Isadore Manchester,	Chiles, Miami.
Florence Adelia Martin,	Junction City, (Riley.)
Henry Alba Martin,	Junction City, (Riley.)
Alice Maude Melton,	Manhattan, Riley.
George Gerkein Menke,	Garden City, Finney.
Mary Frances Minis,	Manhattan, Riley.
May Moore,	Manhattan, Riley.
Louis Anthony Nelson,	Marysville, Marshall.
Hattie Grace Nichols,	Liberal, Seward.
Schuyler Nichols,	Liberal, Seward.
Albert Alden Paige,	Manhattan, Riley.
Lucy Junie Parks,	Manhattan, Riley.
Ernest Byron Patten,	Silver Lake, Shawnee.
Clara Jeanette Perry,	Manhattan, Riley.
Emilie Matilda Pfuetze,	Manhattan, Riley.
John Martin Pierce,	Genoa, <i>Illinois</i> .
Mabel Clair Pond,	Topeka, Shawnee.
Raymond Haines Pond,	Topeka, Shawnee.
William Poole,	Briggs, Geary.
Willis Thomas Pope,	Lincolnville, Marion.
Nora May Reed,	Genoa, <i>Illinois</i> .
Gertrude Rhodes,	Manhattan, Riley.
Henry William Rogler,	Matfield Green, Chase.
Ferdinand John Rumold,	Dillon, Dickinson.
Martin Wilbur Sanderson,	Reedville, Marshall.
Otto David Secrest,	Randolph, Riley.
Olive Maria Shelden,	Manhattan, Riley.
Edwin Lee Smith,	Manhattan, Riley.
Oliver Russell Smith,	Manhattan, Riley.
Bertha Spohr,	Manhattan, Riley.
Andrew B. Symns,	Brenner, Doniphan.
Cora Thackrey,	Manhattan, Riley.
Harriet Emerson Thackrey,	Manhattan, Riley.
Henry Marsden Thomas,	Melvorn, Osage.
Elsie Lucile Waters,	Manhattan, Riley.

<i>Name.</i>	<i>Post-office and County (or State).</i>
Fred Dorsey Waters,	Manhattan, Riley.
Abner Davis Whipple,	Olivet, Osage.
Charles Bernard White,	Waverly, Coffey.
Adelaide Frances Wilder,	Manhattan, Riley.
Josephine Hannah Wilder,	Manhattan, Riley.
Nannie Elizabeth Williams,	Edgerton, Johnson.
Frank Yeoman,	La Crosse, Rush.
Frederick Zimmerman,	Moray, Doniphan.
Kate Elizabeth Zimmerman,	Moray, Doniphan.

THIRD YEAR.

Bonnie Frances Adams,	Marvin, Phillips.
Morrison Carpenter Adams,	Marvin, Phillips.
Delmer Akin,	Manhattan, Riley.
Melvia Fairetta Avery,	Manhattan, Riley.
Etta Barnard,	Manhattan, Riley.
Aaron Schuyler Berry,	Manhattan, Riley.
Minerva Blachly,	Manhattan, Riley.
Albert Edwin Blair,	Quenemo, Osage.
Fred Winchester Bobbitt,	Manhattan, Riley.
Lillie Grace Bolton,	Paxico, Wabaunsee.
James Courtney Bolton,	Paxico, Wabaunsee.
Joseph Abbott Butterfield,	Topeka, Shawnee.
Ernest Lerner Cottrell,	Wabaunsee, Wabaunsee.
Ethel Day,	Lincoln, Lincoln.
Alfred Burton Dille,	Edgerton, Johnson.
Lottie Ethel Eakin,*	Manhattan, Riley.
Edwin Oscar Farrar,	Axtell, Marshall.
Peter Fred Fleming,	Paola, Miami.
Harry Verne Forest,	Thayer, Neosho.
Francis Joseph Habiger,	Bushton, Rice.
Elizabeth Hall,	Manhattan, Riley.
Frank Robbins Hall,	Manhattan, Riley.
John George Haney,	Courtland, Republic.
Myrtle Mary Harner,	Manhattan, Riley.
John Andrew Harvey,	Junction City, (Riley.)
Grace Edna Hill,	Phillipsburg, Phillips.
Hiram Adsit Holzer,	Girard, Crawford.
Stella May Hougham,	Manhattan, Riley.
John Frederic Howe,	Syracuse, Hamilton.
Charles Clifford Jackson,	Gypsum, Saline.
Fred Emanuel Johnson,	Melvern, Osage.
Harry Wallace Johnston,	Caldwell, Sumner.
Lot Parker Keeler,	Centropolis, Franklin.
Albert Thomas Kinsley,	Oakley, Logan.
Ernest Charles Ladd,	Kewanee, Illinois.
Frank Elmer LaShelle,	Chepstow, Washington.
Christian Dagobert Lechner,	Morganville, Clay.
Clara Long,	Manhattan, Riley.
Louisa Mary Maelzer,	Neuchatel, Nemaha.

* Deceased.

<i>Name.</i>	<i>Post-office and County (or State).</i>
Katie Anna Manley,	Council Grove, Morris.
Clark Mansfield,	Junction City, Geary.
Claud Masters,	Hillsdale, Miami.
Robert Bertice Mitchell,	Florence, Marion.
Jennie June Needham,	Lane, Franklin.
Roscoe Townley Nichols,	Liberal, Seward.
Hans Peter Nielsen,	Denmark, Lincoln.
Fanny Gertrude Noyes,	Wabaunsee, Wabaunsee.
Harry Delphos Orr,	Riley, Riley.
Kate Paddock,	Manhattan, Riley.
Carrie Vashti Painter,	Meade, Meade.
Anna C. Pfuetze,	Manhattan, Riley.
Ernest Poston,	Netawaka, Jackson.
Andrew Pottorf,	Riley, Riley.
Laura Ida Pritchard,	La Cygne, Linn.
Mary Bly Pritner,	Keats, Riley.
Otto Independence Purdy,	Fairview, Brown.
Delmer William Randall,	Manhattan, Riley.
William Harry Roberts,	Walsburg, Riley.
Frank Sessions Shelton,	Brisbane, <i>Queensland</i> .
Gertrude Werden Shofe,	Manhattan, Riley.
Harley Lee Snodgrass,	Manhattan, Riley.
Milton David Snodgrass,	Manhattan, Riley.
Stella Stewart,	Olathe, Johnson.
Annie Louisa Streeter,	Milford, Geary.
Fayette Charles Sweet,	Burlington, Coffey.
Frances Eleanor Thackrey,	Manhattan, Riley.
Leon Henry Thomas,	Oakley, Logan.
Emma Elizabeth Tilton,	Detroit, Dickinson.
Nellie Towers,	Manhattan, Riley.
Otho Sprague True,	Vera, Wabaunsee.
James Otis Tulloss,	Rantoul, Franklin.
William Guy Tulloss,	Rantoul, Franklin.
George Franklin Wagner,	Enterprise, Dickinson.
Mary Lana Waugh,	Manhattan, Riley.
Alexander George Wilson,	Mapleton, Bourbon.
Frederick Otto Woestemeyer,	Bethel, Wyandotte.
Hervey W. Yenawine,	Manhattan, Riley.

SECOND YEAR.

Lizzie Jane Agnew,	Yates Center, Woodson.
Grace Allingham,	Manhattan, Riley.
Howard Allman,	Manhattan, Riley.
Edgar McCall Amos,	Manhattan, Riley.
Cecil Girard Anderson,	Manhattan, Riley.
Alice Amanda Arnold,	Manhattan, Riley.
Minnie Atwell,	Manhattan, Riley.
Effie Elizabeth Bailey,	Manhattan, Riley.
Alvah I. Bain,	Marysville, Marshall.
Harry Bainer,	Ottawa, Franklin.
Claude Raymond Bardrick,	Miltonvale, Cloud.

<i>Name.</i>	<i>Post-office and County (or State).</i>
Ella May Barnard,	Manhattan, Riley.
Charlotte Almira Berkey,	Cleveland, <i>Missouri</i> .
Zina Leigh Bliss,	McPherson, McPherson.
Bettie Briggs,	Briggs, Geary.
Louie Brigham,	Randall, Jewell.
Cora L. Brooks,	Allen, Lyon.
Georgia Brooks,	Manhattan, Riley.
Ben Remenyi Brown,	Manhattan, Riley.
Beulah J. Brown,	Leavenworth, Leavenworth.
Arthur Kinney Browning,	Hamlin, Brown.
Elizabeth Barrett Browning,	Manhattan, Riley.
Tom Melancthon Cannon,	White Eagle, <i>Oklahoma</i> .
Louis Marion Chase,	White, Jackson.
Frederick Waldemar Christensen,	Mariadahl, (Riley.)
Charles Howard Clark,	Kinsley, Edwards.
Ernest Marsden Clark,	Garlington, Franklin.
Ernest Mansel Cook,	Oakley, Logan.
Faith Adella Cooper,	Keats, Riley.
Joseph Bryson Corbett,	Manhattan, Riley.
Charles Maclain Correll,	Manhattan, Riley.
John Francis Crowl,	Chino, <i>California</i> .
Mary Elizabeth Crum,	Stockdale, Riley.
Amanda Culp,	Leavenworth, Leavenworth.
Pearle Hoff Cunningham,	Manhattan, Riley.
Jennie Maude Currie,	Manhattan, Riley.
Fannie Rachel Ellen Dale,	Manhattan, Riley.
Sarah Emily Davies,	Bala, Riley.
Laura Orminta De Armond,	Manhattan, Riley.
Samuel Christy Deeds,	Lincoln, Lincoln.
Harry Leroy Dern,	Kingman, Kingman.
Homer Derr,	Baldwin, Douglas.
Mary Alberta Dille,	Edgerton, Johnson.
Charles Madison Drown,	Manhattan, Riley.
Elmer Alexander Drown,	Granada, Nemaha.
James Clark Duff,	Baxter Springs, Cherokee.
Elsie Porter Dunaway,	Manhattan, Riley.
Benjamin Franklin Durant,	Riley, Riley.
Charles Eastman,	Ogden, Riley.
Robert Edward Eastman,	Bloomington, Osborne.
Jennie Edelblute,	Keats, Riley.
Edwin Amos Eggleston,	Columbus, Cherokee.
Julia Anna Ehrsam,	Enterprise, Dickinson.
Emma Mary Eikenhorst,	Manhattan, Riley.
Otto H. Elling,	North Cedar, Jefferson.
Mark Faris,*	Denison, Jackson.
Emma Alice Follin,	Baldwin, Douglas.
Lula Mae Folsom,	Little River, Rice.
Lucius Grant Folsom,	Little River, Rice.
Lottie Blanche Forsythe,	Dwight, Morris.
Frank W. Foster,	Clifton, Clay.

* Deceased.

<i>Name.</i>	<i>Post-office and County (or State),</i>
Ernst Christian Gasser,	Neosho, <i>Missouri</i> .
Harry Senis Goddard,	Vera, Wabaunsee.
George Ogden Greene,	Lincoln, Lincoln.
Hermann Haffner,	Junction City, Geary.
Hakon Hansen,	Guy, Sheridan.
Gustaf William Hanson,	Marquette, McPherson.
James William Harner,	Manhattan, Riley.
Lillian Estelle Hathaway,	Grant, Riley.
Orlo Bertie Haven,	Belleville, Republic.
Charles Russell Haymond,	Burdett, Pawnee.
William Alfred Hayward,	Manhattan, Riley.
Mamie Eva Helder,	Manhattan, Riley.
Louis Gardner Hill,	Phillipsburg, Phillips.
Karl William Hofer,	Manhattan, Riley.
Daisy Gladys Hoffman,	Enterprise, Dickinson.
Edward Wilfred House,	Manhattan, Riley.
Ada Belle How,	Manhattan, Riley.
Floyd James Howard,	Manhattan, Riley.
Minnie Howell,	Manhattan, Riley.
Edith Huntress,	Manhattan, Riley.
Alexander Hutchison,	Arispie, Pottawatomie.
Merton Raymond Johnson,	Olsburg, Pottawatomie.
Louis Berton Jolley,	Manhattan, Riley.
Melville Eugene Joslin,	Randall, Jewell.
Ina Bertha Kneeland,	Milford, Geary.
Raymond George Lawry,	Hollis, Cloud.
Walter Fisk Lawry,	Hollis, Cloud.
Arthur Moore Lee,	Manhattan, Riley.
Charles Henry Lehmkuhl,	Muscotah, Atchison.
Charles Curtis Livingston,	Abilene, Dickinson.
Erma Elizabeth Lock,	Riley, Riley.
Bertha McCreary,	Manhattan, Riley.
N. Ollie McCurry,	Milo, Lincoln.
Mary Agnes McKean,	Grant, Riley.
Roland McKee,	Marysville, Marshall.
Madge Ruth McKeen,	Manhattan, Riley.
Lee McLaren,	Altoona, Wilson.
Nettie McLaren,	Altoona, Wilson.
Amy Manchester,	Chiles, Miami.
William Elmer Miller,	Potter, <i>Oklahoma</i> .
John Rutherford Minis,	Manhattan, Riley.
Charles Dudley Montgomery,	Cedar Point, Chase.
Jennie Edna Moore,	Westmoreland, Pottawatomie.
Clarence William Morgan,	Hillside, Phillips.
Eugene Lawrence Morgan,	Hillside, Phillips.
Fred Byers Morlan,	White Rock, Republic.
Arthur Guy Moyer,	Princeton, Franklin.
Dorothy Myers,	Manhattan, Riley.
George Edward Nelson,	Kackley, Republic.
George Edgar Newton,	Fact, Clay.
Fred Cranston Nicholson,	Manhattan, Riley.

<i>Name.</i>	<i>Post-office and County (or State).</i>
Anna Olson,	Mullinville, Kiowa.
Andrew Edward Oman,	Walsburg, Riley.
George Washington Owens,	Alma, Wabaunsee.
Joseph Lloyd Pancake,	Scott City, Scott.
Albert William Parrack,	Riley, Riley.
James Ralph Payne,	Waterville, Marshall.
Ella Emerson Peck,	Big Valley, <i>Texas</i> .
Rutherford Brockway Peck,	Oakland, Shawnee.
Jesse LeRoy Pelham,	San Luis Potosi, <i>Mexico</i> .
Edith Perkins,	Manhattan, Riley.
Elenore Perkins,	Manhattan, Riley.
John Valentine Pettys,	Herndon, Rawlins.
Paul du Chaillu Piersol,	Randall, Jewell.
Leonard Poston,	Netawaka, Jackson.
Luther Eugene Potter,	Rose, Woodson.
Abbie Elida Putnam,	Manhattan, Riley.
Rosa Minnie Ray,	Winfield, Cowley.
Claude Leroy Ream,	Wetmore, Nemaha.
Alwina Theresea Remmele,	Manhattan, Riley.
George Dwight Reynolds,	Hollenberg, Washington.
Harry Paul Richards,	Manhattan, Riley.
Andrew Edward Robe,	Waverly, Coffey.
Elsie May Robinson,	Manhattan, Riley.
Earle Kyle Rogers,	Marion, Marion.
Alice May Ross,	Manhattan, Riley.
Fred Arthur Russell,	Paola, Miami.
Alvira Salkeld,	Manhattan, Riley.
Alvirtis Cantford Salkeld,	Manhattan, Riley.
Mary Sandell,	Manhattan, Riley.
Claude Herbert Sanford,	Fayetteville, <i>Arkansas</i> .
William Stephen Sargent,	Riley, Riley.
Jessie Schick,	Scott City, Scott.
Adelaide Short,	Fruita, <i>Colorado</i> .
Anna Augusta Siegrist,	Manhattan, Riley.
Ed. S. Sittel,	McAlester, <i>Indian Territory</i> .
Anna Louisa Smith,	Ottumwa, Coffey.
Charles Chester Sowell,	Vassar, Osage.
Clara Spilman,	Manhattan, Riley.
Amelia Spohr,	Manhattan, Riley.
Leroy Stafford,	Republic, Republic.
Mabel Stewart,	Olathe, Johnson.
Blanche Elsie Stump,	Manhattan, Riley.
Cora Edith Swingle,	Manhattan, Riley.
Dean Brett Swingle,	Manhattan, Riley.
Carl Thurber,	Twin Mound, Douglas.
Laura Helen Trumbull,	Manhattan, Riley.
Harry Castle Turner,	Rock Creek, Jefferson.
Phillip Farrand Van Everen,	Manhattan, Riley.
Joseph Culver Van Orsdel,	Waterville, Marshall.
Grace Voiles,	Manhattan, Riley.
Jessie May Wagner,	Enterprise, Dickinson.

<i>Name.</i>	<i>Post-office and County (or State).</i>
Luther Watts Waldraven,	Winkler, Riley.
Bolivar Kernest Walters,	Manhattan, Riley.
Harvey Augustus Washburn,	Riley, Riley.
Lester Monroe Werts,	Denison, (Jefferson.)
Cyrus Edward Wilkins,	Vilas, Wilson.
George Edwin Williams,	Hoganville, Graham.
Nellie Mitchell Williams,	Springside, Pottawatomie.
Charles Clarence Winsler,	Abilene, Dickinson.
Nellie M. Winter,	Manhattan, Riley.
Royal Samuel Wood,	Strong City, Chase.
Lilly Maud Zimmerman,	Moray, Doniphan.

FIRST YEAR.

Arthur Lewis Adams,	Stockton, Rooks.
Rosa May Agnew,	Yates Center, Woodson.
Frederick Car Alexander,	Holton, Jackson.
Marian Allen,	Manhattan, Riley.
Cyrus Norton Allison,	Florence, Marion.
Robert George Andrews,	Marysville, Marshall.
Henry Albert Avery,	Manhattan, Riley.
Wallace W. Baird,	Milford, (Riley.)
Roy Gordon Baldwin,	Seneca, Nemaha.
Edna De Haven Barnes,	Oakland, Shawnee.
Walter Barnum,	Lincoln, Lincoln.
Hattie Beachum,	Manhattan, Riley.
George Ford Bean,	Alma, Wabaunsee.
Charles William Beard,	Riley, Riley.
Edwin Gaines Beckes,	Grand Haven, (Osage.)
Lydia Margaret Bell,	Manhattan, Riley.
Rosa Simpson Bell,	Garlington, Franklin.
Wilbur Morton Bennett,	Parkerville, Morris.
Evalyne A. Bentley,	Catalpa, Gove.
Roy Robert Berkley,	Manhattan, Riley.
Inez Berry,	Mound City, Linn.
Elizabeth Blachly,	Manhattan, Riley.
Loua Adelle Blachly,	Manhattan, Riley.
Georgia Evaline Blaney,	Manhattan, Riley.
Winfred B. Bletcher,	Reedsville, Marshall.
Bessie Sarah Bourne,	Delphos, Ottawa.
Harry S. Bourne,	Delphos, Ottawa.
Roy Allison Bower,	Eureka, Greenwood.
Warren Luther Bowlby,	Fairport, Russell.
George Wallace Brewer,	Waverly, Coffey.
Martha Amelia Briggs,	Briggs, Geary.
Leon Broquet,	Manhattan, Riley.
Prudence Dell Broquet,	Manhattan, Riley.
Alexander Dashway Brown,	Manhattan, Riley.
Ida Blanche Brown,	Manhattan, Riley.
William Albert Brown,	Ottawa, Franklin.
Charles Jay Burson,	Niotaze, Chautauqua.
Howard Frank Butterfield,	Hull, Marshall.

<i>Name.</i>	<i>Post-office and County (or State).</i>
Emma M. Cain,	Clay Center, Clay.
Martha Henrietta Campbell,	Abilene, Dickinson.
Owen Theodore Carnes,	Salina, Saline.
John Tunice Carrier,	Cunningham, Kingman.
Isaac Newton Chilcott,	Mankato, Jewell.
Murray Stanley Cole,	Denison, Jackson.
Robert Curtise Cole,	Denison, Jackson.
Edwin Charles Cook,	Oakley, Logan.
Mabel Aletta Corbett,	Manhattan, Riley.
Charles K. Corkill,	Manhattan, Riley.
Leonard Crandall,	Reserve, Brown.
Lotta Irene Crawford,	Manhattan, Riley.
Thomas Edward Creighton,	Americus, Lyon.
James Henry Crocker,	White City, Morris.
Harry Crump,	Manhattan, Riley.
Trena Dahl,	Webber, Jewell.
Elliott Perie Daniels,	Birmingham, Jackson.
Norma Daniels,	Parsons, Labette.
Sadie Elaine Daniels,	Manhattan, Riley.
Joe Robert Davidson,	Agricola, Coffey.
Laura Davidson,	Agricola, Coffey.
Mary Ann Davies,	Bala, Riley.
Robert William De Armond,	Lincoln, Lincoln.
Daniel Curtis Deming,	Larkin, Jackson.
Orlando Ross Deputy,	Riley, Riley.
Herman August Dieball,	Alma, Wabaunsee.
Edgar Willis Doane,	Louisville, Pottawatomie.
Cora Alice Doverspike,	Welcome, Geary.
Albert Drager,	Corning, Nemaha.
Walter Dimmick Duffy,	Manhattan, Riley.
Helen Dunaway,	Manhattan, Riley.
Noble Dunn,	Oxford, (Cowley.)
Sarah Gertrude Eakin,	Manhattan, Riley.
Rush Elmore,	Tecumseh, Shawnee.
Albert R. Engle,	Minneapolis, Ottawa.
Robert Alexander Esdon,	Olsburg, Pottawatomie.
Walter Wendell Evans,	Wilsey, Morris.
Rainey Faris,	Denison, Jackson.
Harry Haines Fay,	Wilsey, Morris.
Edward Hempstead Fielding,	Manhattan, Riley.
Elias Bert Fields,	Ft. Gibson, <i>Indian Territory.</i>
Samuel Fleishman,	Topeka, Shawnee.
Bessie Ida Flintom,	Alma, Wabaunsee.
Fred Fockele,	Le Roy, Coffey.
James Herman Fritts,	Manhattan, Riley.
David Emerson Gall,	Reserve, Brown.
Maggie Gardenhire,	Alma, Wabaunsee.
Louisa Gerteis,	Derby, Sedgwick.
Harmon A. Gibbs,	Solomon Rapids, Mitchell.
Mary Gibbs,	Industry, Clay.
Randolph Foster Gill,	Pittsburg, Crawford.

<i>Name.</i>	<i>Post-office and County (or State).</i>
Clark A. Gingery,	Summerfield, Marshall.
Watt H. Glenn,	Block, Miami.
Robert Dudley Glidden,	Ransomville, Franklin.
Emma Goodpasture,	Alma, Wabaunsee.
Clara Magdalen Gordon,	Horton, Brown.
Guy David Gould,	Solomon, Dickinson.
Myron Gould,	Fairmount, Leavenworth.
John Q. Green,	Homewood, Franklin.
George Grubb,	Netawaka, Jackson.
Jack William Gyles,	Dodge, Ford.
Leroy Erskine Hall,	Bushton, Rice.
Alanson L. Hallsted,	Havana, Montgomery.
George William Hamman,	Strawn, Coffey.
William Lesley Hanlon,	Orie, (Sumner.)
Gertrude Hanson,	Manhattan, Riley.
Hugh P. Harrold,	Manhattan, Riley.
Maude Hart,	Manhattan, Riley.
William Lee Harvey,	Arkalon, Seward.
Fred Willis Haselwood,	Clifton, (Clay.)
John Adams Haulenbeck,	Manhattan, Riley.
Orr Henderson,	Eureka, Greenwood.
Rodney Hermon,	Clyde, Cloud.
Noah E. Hershey,	Donegal, Dickinson.
Eugene Cleon Higgins,	Grand Haven, (Osage.)
Christine Delphine Hofer,	Manhattan, Riley.
Henrietta Mattie Hofer,	Manhattan, Riley.
William Hofman,	Manhattan, (Pottawatomie)
Carl Holman,	Leavenworth, Leavenworth.
Ada Beatrice Hooker,	Manhattan, Riley.
Minerva Ann Howell,	Manhattan, Riley.
James Henry Howey,	Topeka, Shawnee.
Harlow Kenyon Hudson,	Manhattan, Riley.
Delbert Humphries,	Manhattan, Riley.
Lewis Jay Hunt,	Alma, Wabaunsee.
Harold L. Hutchinson,	Hutchinson, Reno.
Stella Janet Irvin,	Manhattan, Riley.
Arthur Jackson,	Manhattan, Riley.
Winfield Emerson Jackson,	New Lancaster, Miami.
Bessie Amanda Jennison,	Shields, Lane.
Herlan Stewart Jennison,	Shields, Lane.
Emma Johnsmeyer,	Cleburne, Riley.
Fred M. Johnson,	Marysville, Marshall.
Walter August Johnson,	Hackney, Cowley.
Georgeanna Jolly,	Manhattan, Riley.
Arie A. Jones,	Langdon, Reno.
Jesse W. Joss,	Fairview, Brown.
Roscoe Ray Keeler,	Centropolis, Franklin.
William Louis Kelly,	Mayetta, Jackson.
Harold Kilbourn,	Sterling, Rice.
John S. Kilgore,	Leavenworth, Leavenworth.
Edgar Willes Kimball,	Manhattan, Riley.

<i>Name.</i>	<i>Post-office and County (or State).</i>
Samuel Robert Kimble,	Manhattan, Riley.
Helen Knostman,	Manhattan, Riley.
Anthony Kolsky,	Kanona, Decatur.
George Otto Kramer,	Wabaunsee, Wabaunsee.
Conrad August Kruger,†	Pfeifer, Ellis.
Fred Carl Kruger,†	Pfeifer, Ellis.
Daniel Ladd,	Manhattan, Riley.
Anna Mary Landis,	Brenner, Doniphan.
Jessie Mabelle Lantz,	Waldo, Russell.
George Ezery Lee,	Polo, <i>Oklahoma</i> .
Harrie Stancliff Lee,	Manhattan, Riley.
Starr Leek,	Great Bend, Barton.
Mina Linscott,	Milford, Geary.
Albert Dawson Lowry,	Topeka, Shawnee.
Harry Vincent Lowry,	Harris, Anderson.
Otto Meade McAninch,	Manhattan, Riley.
Samuel Burton McAninch,	Manhattan, Riley.
Seba McCall,	Culver, Ottawa.
Carrie Melissa McCord,	Manhattan, Riley.
Stanley McCoy,	Eskridge, Wabaunsee.
Ralph McCracken,	Kensington, Smith.
Charles Alfred McCutchan,	Wabaunsee, Wabaunsee.
Anna Glenn McHugh,	Manhattan, Riley.
Edward James McKee,	Marysville, Marshall.
Amelia Augusta Maelzer,	Neuchatel, Nemaha.
Myrtle Elvina May Marchant,	Manhattan, Riley.
Ernest Burdett Marsh,	McFarland, Wabaunsee.
Charles F. Marshall,	Manhattan, Riley.
George Ellis Martin,	Eureka, Greenwood.
Walter John Martin,	Junction City, (Riley.)
Mary Eleanor Mathewson,	Topeka, Shawnee.
Walter Eldridge Mathewson,	Topeka, Shawnee.
Max Whiter Maxey,	Pomona, Franklin.
Alexander Stephen Maxwell,	Leonardville, Riley.
Elpha Fredericka Meyer,	Menager, Wyandotte.
Emma Maude Miller,	Milford, Geary.
Herbert George Miller,	Conway, McPherson.
Roland Calvin Mitchell,	Florence, Marion.
William Mitchell,	Wabaunsee, Wabaunsee.
William Sylvester Mize,	Olathe, Johnson.
George Mohler,	St. Mary's, Pottawatomie.
Oliver Cromwell Montgomery,	Clyde, Cloud.
Katie Bell Morgan,	Manhattan, Riley.
Marshall E. Moran,	Welcome, Geary.
Benjamin Frank Mudge,	Manhattan, Riley.
Ruth A. Mudge,	Manhattan, Riley.
Charles Elmer Munkres,	Kelso, Morris.
Jessie May Mustard,	Manchester, Dickinson.
Fred Myers,	Marquette, McPherson.

† Suspended.

<i>Name.</i>	<i>Post-office and County (or State).</i>
James Lawrence Nelson,	St. Louis, <i>Missouri</i> .
Merle Edmund Newell,	Manhattan, Riley.
Clara Nitcher,	Ottawa, Franklin.
Martha Nitcher,	Ottawa, Franklin.
Ida Lewis Norton,	Manhattan, Riley.
Margaret Alice Norton,	Manhattan, Riley.
John H. Oesterhaus,	Junction City, Geary.
Clifford Lewis Oldham,	Paola, Miami.
Charlotta Harriet Olin,	Manhattan, Riley.
John Otto Olson,	Vermillion, Marshall.
Carrie Bell Oneel,	Manhattan, Riley.
Charles Martin Paige,	Manhattan, Riley.
Walter E. Pangburn,	Waldo, Russell.
Ernest Cyrus Parks,	Chase, Rice.
Lela Elizabeth Parks,	Manhattan, Riley.
Willis L. Pearce,	Stockdale, Riley.
Daisy Lane Pelham,	San Luis Potosi, <i>Mexico</i> .
Walter Peterson,	Monterey, Riley.
Pearl Mabel Phillips,	Manhattan, Riley.
Helena Maude Pincomb,	Hector, Johnson.
Bryant Poole,	Briggs, Geary.
Pearl Jasper Porter,	North Topeka, Shawnee.
Ray Oscar Porter,	Stafford, Stafford.
Harry Pratt,	Museum, Sheridan.
Price Lewious Pritchard,	Manhattan, Riley.
Frank Hoyt Purcell,	Manhattan, Riley.
Arthur Earl Pursel,	Manhattan, Riley.
Bartholomew Quesnoy,	Weir, Cherokee.
William Judson Railsback,	Langdon, Reno.
William Stephen Read,	Sutphen, Dickinson.
George Boyd Rhoades,	Gardner, Johnson.
Harry Hall Richards,	Manhattan, Riley.
Alta Maria Rigg,	Marvin, Phillips.
Eva Talitha Rigg,	Marvin, Phillips.
Leroy Rigg,	Marvin, Phillips.
Herman Hale Riley,	Waverly, Coffey.
Florence Rebecka Ritchie,	Manhattan, Riley.
Kate L. Robertson,	Manhattan, Riley.
Eugene V. Roe,	Silver Lake, Shawnee.
Fred Clarence Roll,	Effingham, Atchison.
George Washington Roll,	Manhattan, Riley.
Frank Adelbert Root,	Gypsum City, Saline.
Maud Ross,	Manhattan, Riley.
Charles R. Sample,	Haysville, Sedgwick.
Eugene Lafayette Sanborn,	Manhattan, Riley.
Peter Henry Sanneman,	Fact, Clay.
Maude Sauble,	Florence, Marion.
Charles A. Scott,	Westmoreland, Pottawatomie.
Wesley Sebring,	Westmoreland, Pottawatomie.
Fred Marten Seekamp,	Mulvane, (Sedgwick.)
Howard Charles Shafer,	Goddard, Sedgwick.

<i>Name.</i>	<i>Post-office and County (or State).</i>
Alfred J. Shearer,	Frankfort, Marshall.
Lawrence M. Shearer,	Cawker City, Mitchell.
John Wesley Sherwood,	Manhattan, Riley.
Robert Benjamin Sherwood,	Manhattan, Riley.
Edward Alfred Shirtcliff,	Otego, Jewell.
Ethel Lilian Shofe,	Manhattan, Riley.
Charles Earl Shoffner,	Eureka, Greenwood.
Cora May Shull,	Manhattan, Riley.
Florence Shuyler,	Nickerson, Reno.
Harry Allen Shuyler,	Nickerson, Reno.
Charles Austin Smedley,	Agra, Phillips.
Dorsey H. Smith,	Niles, Ottawa.
Arthur V. Snodgrass,	Little River, Rice.
Florence A. Snodgrass,	Little River, Rice.
John Edwin Snyder,	Newkirk, <i>Oklahoma</i> .
William Henry Soupene,	Manhattan, (Pottawatomie.)
Charles Orval Sparks,	Ludell, Rawlins.
John Thomas Stafford,	Garnett, Anderson.
Roscoe Day Stafford,	Leonardville, Riley.
Benjamin Franklin Staver,	Hector, Johnson.
Arthur Stevens,	Sycamore, Montgomery.
Royal Albert Streeter,	Manhattan, Riley.
Adelaide Strite,	Garrison, Pottawatomie.
Ora Day Strong,	McFarland, Wabaunsee.
Anna Odette Summers,	Waterville, Marshall.
Mary Rebecca Sweany,	Fostoria, Pottawatomie.
Lucy A. Sweet,	Stockdale, Riley.
Victor Emanuel Syster,	Reserve, Brown.
Ernest Wilkins Tague,	Manhattan, Riley.
Millie Minerva Tague,	Manhattan, Riley.
Louis Teas,	Welcome, (Wabaunsee.)
Stella Mae Tharp,	Winfield, Cowley.
John O. Thomas,	Bala, Riley.
Barton Thompson,	Garrison, Pottawatomie.
Harry M. Thompson,*	Edwardsville, Wyandotte.
Jesse K. Tilford,	Waverly, Coffey.
Myrtie Lucy Toothaker,	Wheaton, Pottawatomie.
Charles Daniel Townley,	Milan, <i>Missouri</i> .
Ralph F. Triplett,	Clay Center, Clay.
Helen Castle True,	Vera, Wabaunsee.
Clayborne C. Turner,	Oakley, Logan.
Pearle Julia Turner,	Rock Creek, Jefferson.
Florence Helen Vail,	Manhattan, Riley.
Harriet Emily Van Everen,	Manhattan, Riley.
Victor Emanuel Vilander,	Cleburne, Riley.
Mary Caroline Wagner,	Enterprise, Dickinson.
Orin Russell Wakefield,	Wilsey, Morris.
Caddie G. Warner,	Manhattan, Riley.
Laura E. Warner,	Longford, Clay.

* Deceased.

<i>Name.</i>	<i>Post-office and County (or State).</i>
Lizzie Mabel Waters,	Berryton, Shawnee.
Noah Philo Way,	Talmo, Republic.
Daniel R. Webster,	Delphos, Ottawa.
Barbara Welter,	Myers Valley, Pottawatomie.
Ernest West,	Neodesha, Wilson.
Herman Henry Wetzig,	Winkler, Riley.
Otto Christian Weyer,	Baileyville, Nemaha.
James Halley Whipple,	Olivet, Osage.
David Dwight White,	Newton, Harvey.
Eleanor Mary White,	Newton, Harvey.
Harry Browning Whitney,	Manhattan, Riley.
Carl Herbert Theodore Widegren,	Morganville, Clay.
Paul Antony Wiedemann,	Alma, Wabaunsee.
Amelia Jennie Wiest,	Manhattan, Riley.
Myron D. Williams,	Manhattan, Riley.
Augustus Packard Winters,	Chapman, Dickinson.
Katharena Winter,	Manhattan, Riley.
Mary Rowena Wolfley,	Ontario, Jackson.
Ai Lacy Worswick,	Oskaloosa, Jefferson.
Lucie Joan Wyatt,	Westmoreland, Pottawatomie.
John Wyse,	Yates Center, Woodson.
John Milton Yard,	Smith Center, Smith.
George Lester Yeakley,	Great Bend, Barton.
Mary Estelle Yenawine,	Manhattan, Riley.
Henry Theodore York,	Rossville, Shawnee.
James Lucien Young,	Stanley, Johnson.
Claude Zirkle,	Richland, Shawnee.

PREPARATORY.

John Henry Barber,	Weigand, Nebraska.
Ada Batten,	Manhattan, Riley.
James Beck,	Lansing, Leavenworth.
John Bell,	Manhattan, Riley.
George A. Bigler,	Greenbush, Crawford.
Frank Bertun Bobbitt,	Manhattan, Riley.
Clarence Brullman,	Louisburg, Miami.
George Artie Buell,	Everest, Brown.
Maranda Emery Burton,	Parkerville, Morris.
Lottie Sedonia Callahan,	Stockdale, Riley.
Lula Margaret Callahan,	Stockdale, Riley.
John Edward Carlson,	Clay Center, Clay.
William Elery Catherman,	Tescott, Ottawa.
Bert Cole,	Kelly, Nemaha.
Edwin Cook,	Effingham, Atchison.
Robert O. Dahlstrom,	Alida, (Dickinson.)
Bertha May Dana,	Manhattan, Riley.
Stella Jane Davis,	Delphos, Ottawa.
William J. Davis,	Arvonia, Osage.
John Virgil Dedrick,	Leon, Butler.
Joseph F. Demain,	Wendell, Edwards.
Roy Nathan Dorman,	Wabaunsee, Wabaunsee.

<i>Name.</i>	<i>Post-office and County (or State).</i>
Ella Augusta Drager,	Corning, Nemaha.
Elijah Edmonds,	McLouth, Jefferson.
Carl Hjalmer Erickson,	Marquette, McPherson.
Ben Ganoung,	Manhattan, Riley.
Dell Ganoung,	Manhattan, Riley.
Walter Gilman,	Baldwin, Douglas.
Byron Ash Ginter,	Winchester, Jefferson.
Mamie E. Ginter,	Winchester, Jefferson.
William H. Ginter,	Winchester, Jefferson.
Arthur Daniel Hallmark,	White City, Morris.
John Hansen,	Willis, Brown.
Joseph Hardy,	Pleasanton, Linn.
George Haulenbeck,	Manhattan, Riley.
May Hedrick,	Lincoln Center, Lincoln.
Frank Ferris Hillyer,	Wilsey, Morris.
Walter J. Hoar,	Manhattan, Riley.
Fenwick Harvey Hunt,	Leon, Butler.
Oliver Brooken Jeffers,	Fredonia, Wilson.
Gustaf Johnson,	Stitt, Dickinson.
Ida Matilda Johnson,	Melvorn, Osage.
Anna T. Kelley,	Wheaton, Pottawatomie.
Thomas Kelly,	Ogden, Riley.
Albert Krotzer,	Manhattan, Riley.
Alfred G. Lawson,	Marquette, (Ellsworth.)
John Wesley Lewis,	Manhattan, Riley.
Anton Lunden,	Morganville, Clay.
Thomas E. McCurry,	Milo, Lincoln.
Elesa Carrie Maas,	Alma, Wabaunsee.
Richard Henry Maas,	Alma, Wabaunsee.
Otto John Marhenke,	Eureka, Greenwood.
James Alva Masheter,	Sabetha, Nemaha.
Alvine Otto Meyer,	Menager, Wyandotte.
John Michaud,	St. Joseph, Cloud.
Mary Josephine Monahan,	Manhattan, Riley.
Anna V. O'Keefe,	Meriden, Jefferson.
John Eugene Phillips,	Stockton, Rooks.
Emory Plumb,	Abilene, Dickinson.
Albert W. Porter,	North Topeka, Shawnee.
Theodore Sauble,	Florence, Marion.
Paul Schmitz,	Alma, Wabaunsee.
John Marcus Scott,	Westmoreland, Pottawatomie
William Lyman Shaffer,	Fulton, Bourbon.
Osborne Perry Shearer,	Cawker City, Mitchell.
Edward Lincoln Sherwood,	Manhattan, Riley.
Weston Shoffner,	Eureka, Greenwood.
Frank H. P. Smith,	Manhattan, Riley.
Herbert Paul Stebbins,	Atchison, Atchison.
Clarence Garfield Stump,	Manhattan, Riley.
Kate Brown Tilton,	Detroit, Dickinson.
Hezekiah Tracy,	New Lancaster, Miami.
Margaret Welter,	Myers Valley, Pottawatomie.

<i>Name.</i>	<i>Post-office and County (or State).</i>
Albert Francis Wilson,	Strong City, Chase.
Bert Zirkle,	Bushton, Rice.
Ed. H. Zirkle,	Richland, Shawnee.
William Edward Zirkle,	Richland, Shawnee.

SPECIAL STUDENTS.

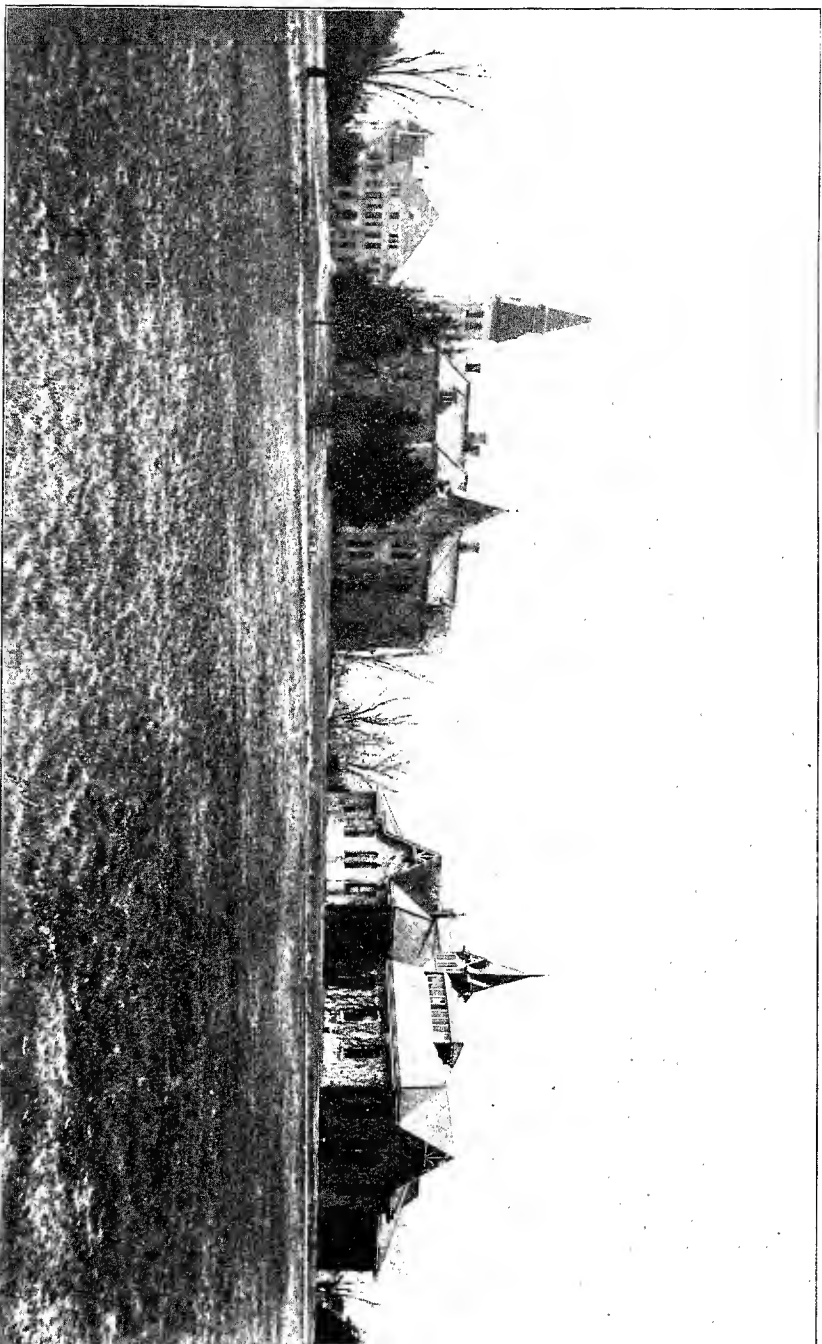
Louise Burnham,	Alma, Wabaunsee.
Reppie Carey,	Manhattan, Riley.
Guy Irl Chamberlin,	Maize, Sedgwick.
William Chester Coleman,	Sabetha, Nemaha.
Lucian C Freeland,	Almena, Norton.
John Chris Gartner,	Fort Riley, Geary.
Marion Gilkerson,	Manhattan, Riley.
Anna Winter Hall,	Manhattan, Riley.
Elmyra Harrison,	Greenfield, <i>Missouri</i> .
James Ambrose Paddock,	Manhattan, Riley.
Vard Ramsour,	Briggs, Geary.
Jennie May Selby,	Manhattan, Riley.
Minnie Trimmer,	Topeka, Shawnee.
Elmer H. White,	Groveland, McPherson.
Herbert Milton Young,	Conway, McPherson.

DAIRY STUDENTS.

Claude Raymond Bardrick,	Miltonvale, Cloud.
W. D. Borgen,	Belleville, Republic.
Harold Theodore Nielsen,	Denmark, Lincoln.
John Eugene Phillips,	Stockton, Rooks.
Royal Samuel Wood,	Strong City, Chase.
Frederick Zimmerman,	Moray, Doniphan.

APPRENTICES.

George W. Dexter,	Home, Marshall.
Charles A. Geist,	Alida, Geary.
Watt H. Glenn,	Block, Miami.
Jack William Gyles,	Dodge City, Ford.
Porter Hayse Rader,	Manhattan, Riley.
George Boyd Rhoades,	Gardner, Johnson.
Eugene Lafayette Sanborn,	Manhattan, Riley.
Theodore Sauble,	Florence, Marion.
Howard Charles Shafer,	Goddard, Sedgwick.



LIBRARY HALL.

MAIN BUILDING.

CHEMICAL LABORATORY.

SUMMARY.

CLASSES.	Gentlemen.	Ladies.	Total.
Postgraduate.....	33	24	57
Fourth year.....	44	38	82
Third year.....	49	28	77
Second year.....	104	70	174
First year.....	216	100	316
Preparatory.....	62	15	77
Special.....	8	7	15
Dairy.....	6	.....	6
Apprentices.....	9	.....	9
Counted twice.....	10	.....	10
Totals.....	521	282	803

From 83 counties of Kansas, 771.

From 14 other states, 32.

Applicants not enrolled, 17.

RECORD OF ATTENDANCE, 1879-1898.

COLLEGE YEAR.	Dairy.....	Apprentices....	Special.....	Preparatory...	First year.....	Second year....	Third year.....	Fourth year....	Postgraduate...	Counted twice..	Total.....	Graduated.....
1878-79.....	90	89	16	12	.....	.....	207	9
1879-80.....	167	61	35	11	2	.....	276	7
1880-81.....	184	48	24	9	2	.....	267	8
1881-82.....	232	50	19	11	.....	.....	312	9
1882-83.....	245	60	30	12	.....	.....	347	12
1883-84.....	257	92	26	18	2	.....	395	17
1884-85.....	274	71	36	16	5	.....	402	14
1885-86.....	274	91	35	24	4	.....	428	21
1886-87.....	312	96	44	24	7	.....	485	21
1887-88.....	305	92	46	27	2	.....	472	22
1888-89.....	266	103	41	28	7	.....	445	25
1889-90.....	307	105	63	28	11	.....	514	27
1890-91.....	343	135	50	53	12	.....	593	52
1891-92.....	336	139	62	37	10	.....	584	35
1892-93.....	339	110	66	43	29	.....	587	39
1893-94.....	275	141	72	42	25	.....	555	40
1894-95.....	5	.....	276	108	89	64	30	.....	572	57
1895-96.....	3	.....	353	121	67	71	32	.....	647	66
1896-97.....	6	67	321	163	69	62	46	.....	734	55
1897-98.....	6	9	15	77	316	174	77	82	57	10	803	....

History and Resources.

An act of Congress, approved July 2, 1862, gave to each state public lands to the amount of 30,000 acres for each of the senators and representatives in Congress according to the census of 1860, for the "endowment, support and maintenance of at least one college, where the leading object shall be, without excluding other scientific and classical studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, . . . in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."

Under this act, the state of Kansas received 82,313.53 acres of land, and, in 1863, established the State Agricultural College, by endowing with these lands Bluemont College, which had been erected two miles from Manhattan, under the auspices of the Methodist Episcopal Church, but was presented to the state for the purpose named in the act of Congress.

In 1873 the College was reorganized upon a thoroughly industrial basis, with prominence given to practical agriculture and related sciences; and in 1875 the furniture and apparatus of the College were moved to the farm of 223 acres, one mile from the city of Manhattan. On this fine location the state has provided buildings costing \$216,000; of these a description is given elsewhere. The farm and grounds, furniture, stock and other illustrative apparatus cost \$183,000. The entire College estate comprises 323 acres, 100 lying one mile west of the College in two tracts of 20 and 80 acres, respectively. The present value of buildings, grounds, apparatus, etc., is almost equal to the sum of all appropriations by the state. Nearly all the lands have been sold, giving a fund of \$503,035.60, which is by law invested in bonds, the interest alone being used for the current expenses of the College.

The annual income from the endowment fund — about \$28,000 — is supplemented by an appropriation under an act of Congress approved August 30, 1890, of \$15,000 for 1890, and a sum increasing each year by \$1,000 until the annual amount shall be \$25,000. This fund, now \$24,000, is "to be applied only to instruction in agriculture, the mechanic arts and the English language, and the various branches of mathematical, physical, natural and economic science, with special reference to their application in the industries of life, and to the facilities for such instruction." "No portion of said moneys shall

be applied, directly or indirectly, under any pretense whatever, to the purchase, erection, preservation or repair of any building or buildings."

All the expense of instruction is thus provided for, and the state is left to erect and maintain the necessary buildings and meet expenses in management of the funds.

Under an act of Congress approved March 7, 1887, the College receives, by annual appropriations in Congress, \$15,000 a year for the maintenance of an experiment station, "to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture, and to promote scientific investigation and experiment respecting the principles and applications of agricultural science." The property of the Station, including a building erected especially for its use, amounts to more than \$16,000.

Grounds and Buildings.

The College grounds and buildings, occupying an elevation at the western limits of the city of Manhattan, and facing towards the city, are beautiful in location. The grounds include an irregular plat in the midst of a fine farm, with orchard, vineyard and sample gardens attached, the whole being surrounded by durable stone walls. The grounds are tastefully laid out and extensively planted, according to the design of a professional landscape gardener, while well-graveled drives and good walks lead to the various buildings. All of these are of the famed Manhattan limestone, of simple but neat styles of architecture, and admirably suited to their use. All recitation rooms are excellently lighted and ventilated, and all are heated by steam or hot water. A complete system of sewerage has been provided. The buildings stand as indicated in the plat accompanying the following description :

College, 152 x 250 feet in extreme dimensions, arranged in three distinct structures, with connecting corridors. This building contains, in its two stories and basement, offices of President and Secretary, cloak-rooms, studies, chapel, printing-office, and seventeen classrooms.

Chemical laboratory, one story, 26 x 90 and 46 x 75 feet of floor space, in form of a cross. It contains seven rooms, occupied by the department of chemistry and mineralogy.

Mechanics hall, 39 x 103 feet, two stories, and 40 x 80 feet, one story, occupied by wood and iron shops, finishing shop, and classroom. A foundry, 32 x 42 feet, is attached.

A central steam plant furnishes heat and power to the buildings.

Horticultural hall, 32 x 80 feet, one story and cellar, having museum, class-room, and storage, with greenhouse attached.

Horticultural laboratory, with six propagating houses attached.

Armory and entomological laboratory, 46 x 96 feet, two stories. This building, which has served many purposes, is now fitted for an armory and drill room below, and for entomological class-room, laboratory, and museum, and veterinary museum, above.

Library and agricultural science hall, 100 x 140 feet, three and four stories. This building provides permanent quarters for the library, with ample reading-room; classrooms, laboratories, and cabinet room for zoölogy, veterinary science, and botany; a classroom for use in

history and economics; and suitable rooms for various College societies.

Domestic science hall, 84x70 feet, contains two stories and basement. The first story and the basement are occupied by the department of household economics, lunches to students and members of the faculty being served in the basement. The second floor is occupied in part by the department of music and in part by that of sewing.

The farm barn is a double but connected stone structure, 50x75 feet and 48x96 feet, with an addition of sheds and experimental pens 40x50 feet. A basement, having stalls for seventy-five head of cattle, silos, motor room, and granaries, underlies the entire structure.

The horticultural barn is a stone building, containing storeroom, granary, and stables for several horses.

The foundries, lumber house, implement house, piggery and various outbuildings are of wood.

One stone dwelling, occupied by the professor of agriculture, and one frame dwelling, occupied by the teamster of the farm.

LIBRARY.

The library consists of 18,559 bound volumes and about 5500 pamphlets, including 1199 volumes belonging to the Experiment Station. It has been selected mainly with a view to supplementing the classroom instruction in the various departments. All the books are indexed in a card catalogue, so that the resources of the library upon any subject may be readily learned. All students have free access to the bookshelves, and may draw the books for home use, under simple and most liberal regulations.

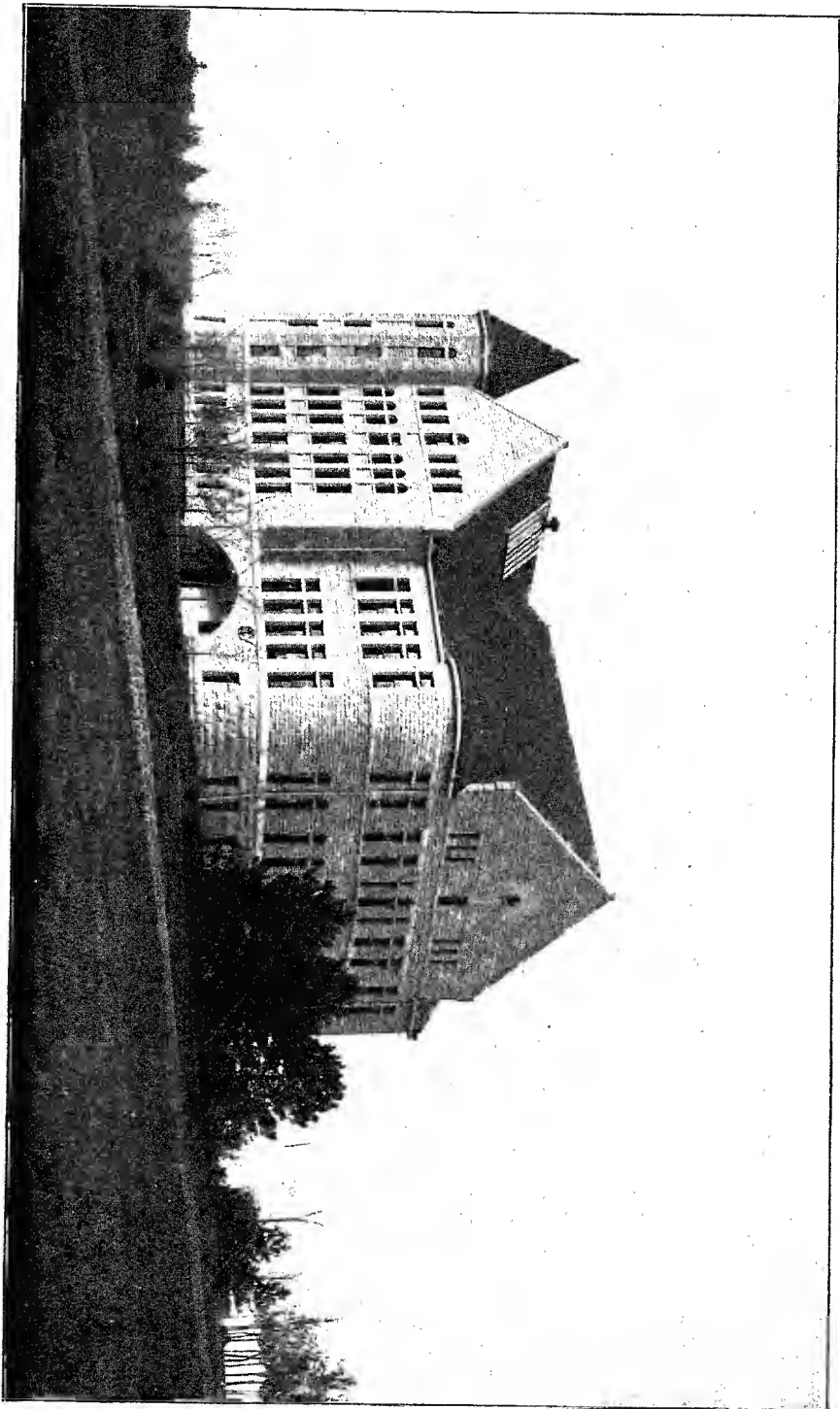
The College subscribes for the leading literary, scientific and agricultural journals; while the principal daily and weekly papers of Kansas, and many from other states, are received in exchange for the College publications. All these are kept on file for the use of students and Faculty.

The College has been designated as a depository of United States public documents for the fifth congressional district of Kansas, and 2102 volumes have already been received on this account.

The library is open daily, except on legal holidays, from 7 A. M. to 6 P. M. The librarian or the assistant is in constant attendance at these hours to assist those who use the books.

An approximate estimate of the number of books, including public reports and bound periodicals, by classes, is as follows:

<i>Classes.</i>	<i>Vols.</i>	<i>Classes.</i>	<i>Vols.</i>
Agriculture.....	2290	Logic and philosophy.....	175
Horticulture.....	560	General science.....	690
Mechanics and engineering.....	495	Geography and travels.....	240
Mathematics and astronomy.....	260	Dictionaries and cyclopedias.....	180
Physics and meteorology.....	305	Education.....	345
Chemistry and mineralogy.....	480	Law.....	185
Geology.....	300	Administrative reports.....	360
Botany.....	792	Public documents on deposit.....	2100
Zoology and entomology.....	560	Fiction.....	480
Biology.....	100	Poetry.....	190
Medical and veterinary science.....	350	Religion and morals.....	500
Military science.....	90	Fine arts.....	190
Domestic science.....	125	Bound magazines.....	1365
Economic science.....	525	Music.....	61
History and political science.....	1420	History of industry.....	200
Printing.....	60	Oratory.....	60
Industrial art and design.....	170	Experiment station bulletins and reports,	507
English language and literature.....	1005	Miscellaneous books.....	59



LIBRARY HALL.

Objects.

This College now accomplishes the objects of its endowment in several ways :

First. It gives a substantial education to men and women. Such general information and discipline of mind and character as help to make intelligent and useful citizens are afforded in all its departments, while students are kept in sympathy with the callings of the people.

Second. It teaches the sciences applied to the various industries of farm, shop, and home. Chemistry, botany, entomology, zoölogy and mechanics are made prominent means of education to quick observation and accurate judgment. Careful study of the minerals, plants and animals themselves illustrates and fixes the daily lessons. At the same time lessons in agriculture, horticulture, engineering and household economy show the application of science ; and all are enforced by actual experiment.

Third. It trains in the elements of the arts themselves, and imparts such skill as to make the hands ready instruments of thoughtful brains. The drill of the shops, gardens, farm and household department is made a part of the general education for usefulness, and insures a means of living to all who make good use of it. At the same time it preserves habits of industry and manual exertion, and cultivates a taste for rural and domestic pursuits.

Fourth. It strives to increase our experimental knowledge of agriculture and horticulture. The provision for extensive and accurate researches, made by establishing the Experiment Station as a distinct department of the College, offers assurance of more definite results than can be obtained by ordinary methods. The professors of agriculture, horticulture and entomology, chemistry, botany, and veterinary science, together with the Secretary and the President of the College, form the Experiment Station Council. By authority of the President, subject to the Board of Regents, experiments are undertaken and carried on in the several departments, under the special supervision of the professors. These touch "the physiology of plants and animals; the diseases to which they are severally subject, with remedies for the same; the chemical composition of useful plants at their different stages of growth; the comparative advantages of rota-

tive cropping as pursued under a varying series of crops; the capacity of new plants or trees for acclimation; the analysis of soils and waters; the chemical composition of manures, natural or artificial, with experiments designed to test their comparative effects on crops of different kinds; the adaptation and value of grasses for forage plants; the composition and digestibility of the different kinds of food for domestic animals; the scientific and economic questions involved in the production of butter and cheese; and such other researches or experiments bearing directly on the agricultural industry of the United States as may in each case be deemed advisable." The bulletins of the Station, issued at least as often as once in three months, and amounting to not less than 40,000 copies during the year, are sent, according to law, free of postage, to all newspapers in the state, and "to such individuals actually engaged in farming as may request the same, and as far as the means of the Station will permit." Correspondence with reference to bulletins and experiments is welcomed, and may be addressed to the President or to the several members of the Council.

Fifth. It seeks to extend the influence of knowledge in practical affairs beyond the College itself. For this purpose, farmers' institutes have been organized in about sixty counties of the state, in which two members of the Faculty share with the people in lectures, essays and discussions upon topics of most interest to farmers and their families. These institutes, held for the past fifteen years, have brought the College into direct sympathy with the people and their work, so as to make possible a general dissemination of the truths presented. Members of the Faculty are also prominently connected with the state associations for the promotion of agriculture, horticulture, the natural sciences, and education in general. Correspondence as to farmers' institutes or any questions of practical interest in agriculture or related sciences is desired.

Sixth. It seeks to awaken the agricultural and industrial classes to a realization of the fact that their prosperity and progress depend not alone upon their efficiency as producers, but in part as well upon the operation of the principles of distribution and exchange; overproduction and poverty often going hand in hand.

The *Industrialist*, published ten times per year, and edited by the Faculty, and the weekly *Students' Herald*, edited by students, both publications being products of the College printing office, give a wide circulation to matters of interest to the College.

COURSES OF STUDY.

With a view to providing for the wants of the various classes of students, the following four courses of study are offered. The student is advised to consult with parents and teachers, and choose carefully his course; since, while a transition from one course to another is not impossible, it cannot be made without some degree of loss and hardship.

Fuller explanations of the different courses and studies are found under "Outline of Instruction."

The figures in the tables following show number of hours devoted in class to the given subject per week. Subjects in *italic type* require no study outside of class. *Military drill* in third and fourth years is optional.

See pages 36-39.

COURSES OF STUDY.

COURSES OF STUDY.			
SECOND YEAR.			
Fall Term.			
Agricultural Course.	Engineering Course.	General Course.	Household Economics Course.
Hygiene of Farm Animals 3 Botany 2 Geometry 5 Tillage and Fertility 5 Chemistry: 5 (a) Class work 2½ (b) Laboratory 2½ Industrial (Horticulture) 5 Military Science (or Drill) 5	Geometry 5 Projection Drawing 5 Chemistry: 5 (a) Class work 2½ (b) Laboratory 10 Industrial and Lectures, 10 Military Science (or Drill) 5	Botany 2 Theme Writing 5 Oratory 5 Chemistry: 5 (a) Class work 2½ (b) Laboratory 2½ Industrial 5 Military Science (or Drill) 5	Botany 2 Theme Writing 5 Oratory 5 Chemistry: 5 (a) Class work 2½ (b) Laboratory 2½ Industrial 5
Winter Term.			
Botany 2 Dairying 5 General History 5 Horticulture 3 Chemistry: 5 (a) Class work 2½ (b) Laboratory 10 Industrial (Dairying) 10 Military Science (or Drill) 5	Chemistry 5 General History 5 Trigonometry 5 Projection Drawing 5 Industrial 5 Military Science (or Drill) 5	✓ Geometry 5 General History 5 Agriculture 5 Chemistry: 5 (a) Class work 2½ (b) Laboratory 5 Industrial 5 Military Science (or Drill) 5	Horticulture 3 General History 5 Household Economics 5 Chemistry: 5 (a) Class work 2½ (b) Laboratory 5 Industrial 5 Dressmaking 2
Spring Term.			
Crop Production 5 Entomology 5 Physiology 5 United States History 5 Analytical Chemistry, including Laboratory work 10 Military Science (or Drill) 5	Analytical Geometry 5 United States History 5 Analytical Chemistry, with Laboratory work 10 Projection Drawing 5 Industrial 5 Military Science (or Drill) 5	✓ Geometry 5 Physiology 5 ✓ United States History 5 Analytical Chemistry, including Laboratory work 10 Military Science (or Drill) 5	Geometry 5 Physiology 5 United States History 5 Analytical Chemistry, including Laboratory, 10

THIRD YEAR.

THIRD YEAR		Fall Term.		Winter Term.		Spring Term.	
Agricultural Course. Agricultural Chemistry, 5 Economic Science..... 5 Vegetable Gardening and Small Fruit Culture... 5 Theme Writing..... 5 Oratory..... 5		Engineering Course. Calculus..... 3 Economic Science..... 5 Mechanics..... 2 Theme Writing..... 5 <i>Axonometric Drawing</i> , 5 <i>Industrial</i> 5		General Course. Principles of Economics, 5 Projection Drawing.... 2½ Rhetoric..... 5½ Trigonometry..... 5½ <i>Industrial</i> 5		Household Economics Course. Principles of Economics, 5 Vegetable Gardening and Small Fruit Culture... 5 Rhetoric..... 2½ Home Architecture..... 5 <i>Industrial</i> 5	
Civics..... 5 Chemistry of Foods } (half term)..... 5 Stock Feeding (½ term) } Biology..... 5 Agricultural Mechanics, 2 Physical Botany: (a) Class work..... 3 (b) Laboratory..... 5		Calculus..... 3 Civics..... 5 Descriptive Geometry... 5 Mechanics..... 2 Oratory..... 3 <i>Industrial and Lectures</i> 10		Biology..... 5 Civics..... 5 Dynamic Geology..... 5½ Chemistry of Foods } (half term)..... 5 Projection Drawing } (half term)..... 5 <i>Industrial</i> 5		Biology..... 5 Civics..... 5 Dynamic Geology..... 5 Chemistry of Foods } (half term)..... 5 Floriculture(half term) } <i>Industrial</i> 5	
Stock Feeding..... 3 Breeds and Breeding.... 5 Dynamic Geology..... 5 Cryptogamic Botany: (a) Class work..... 2 (b) Laboratory..... 5 <i>Industrial</i> (Horticulture)..... 5		Calculus..... 2 Hydraulics..... 2 Machine Design..... 10 Physics..... 3 Principles of Mechanism, 5 <i>Perspective and Sketching</i> 2½ <i>Industrial</i> 7½		Elective..... 5½ Nineteenth Century History..... 5 Oratory..... 5½ Perspective and Sketching..... 2½ <i>Industrial</i> 5		Household Economics... 5 Nineteenth Century History..... 5 Oratory..... 5 Ornamental Gardening.. 2½ <i>Industrial</i> 5	

EXTENDED COURSE.

Considering the entrance requirements of the institution, the four years' course of study is brief. Where practicable, students are advised to extend their course to five years. For students desiring to do this, additional work will be arranged in departments in which they may desire to specialize. Work done in the extended course may receive special mention on the diploma and be counted against requirements for the second degree.

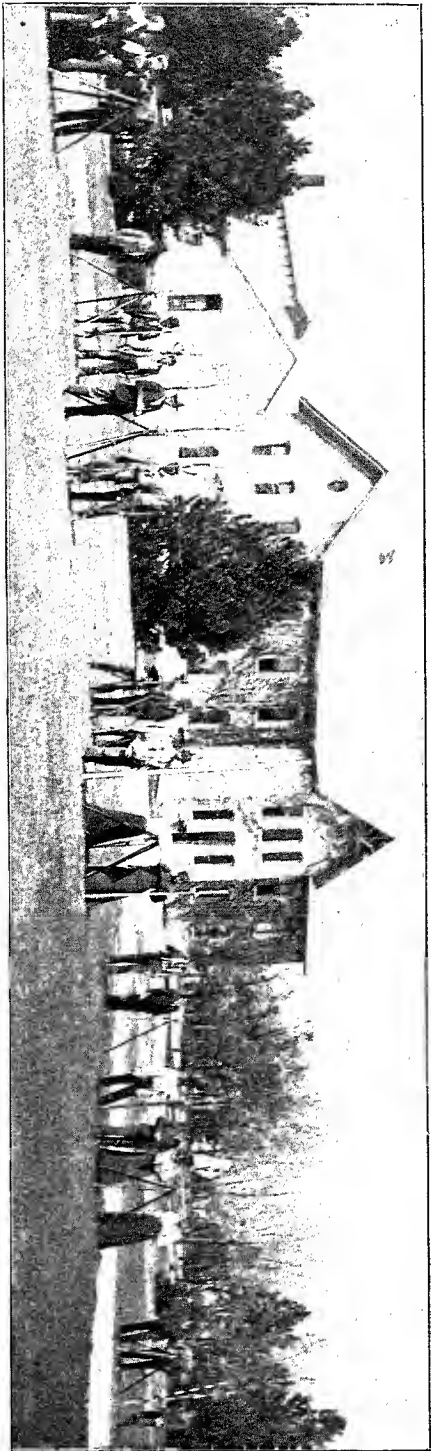
ARCHITECTURAL COURSE.

Work for engineering students who intend to follow pursuits in any of the various lines of designing, building and decoration is offered, as follows: In the spring term of the third year, architectural details, arches, trusses, stairs, and roofs, in place of machine design. In the fall of the fourth year, historic ornament, façades, and decoration, in place of measurement of power. In the winter of the fourth year, water-supply, sewers, heating, ventilation, and specifications, in place of measurement of power and engineering laboratory. In the spring term of the fourth year, original architectural designing and photographing.

INDUSTRIAL TRAINING.

Closely adjusted to the course of study is industrial training in several of the arts, to which each student is required to devote at least one hour a day throughout almost his entire course. Among the lines of training, each student may select, with the approval of the Faculty, except in terms when special industrials are required. Young men may have farming, gardening, fruit-growing, woodwork, ironwork, or printing. Young women may take cooking, sewing, printing, floriculture, or music. The training in these departments is designed to be systematic and complete in each, so that a student following a single line diligently through the four-years' course gains the essentials of a trade and a reasonable degree of skill. Those who wish only a general training in the arts can take shorter courses in several of them.

The young men taking the agricultural course are required to have their industrial in the carpenter and blacksmith shops during the first year, in order to gain sufficient skill in handling tools to be able to do the wood and iron work commonly needed on the farm. In the fall term of the second year and the spring term of the third year they have work in the orchards and gardens. In the winter term of the second year dairy industrial is required, and practice given in running hand separators, Babcock testers, and in butter-making. In the fall term of the fourth year the industrial is in field and feeding work.



SURVEYING SQUADS.—IRON AND WOODWORK SHOPS.



COLLEGE BATTALION.

Industrial classes in dairying will be organized during the fall and spring terms for those who wish to take this work as a special study, ten hours per week being required.

Dairying is required as the industrial in the fourth year, fall term, of the household economics course. In the same course sewing industrial must be taken throughout the first year; while three terms of cooking industrial are required, one at least of which must be taken in the second year.

COURSES FOR APPRENTICES.

In the Shops.—In the College shops opportunities are offered to obtain practical skill in blacksmithing, foundry and machine-shop practice. The iron shops will accommodate about 100 men, and in the afternoon they are worked well toward their full capacity. The advantages of the shops are offered free to a limited number of young men who cannot enter regularly into the College classes. The course is distinctly an apprentice course, but the apprenticeship will be in such a place as will render instruction rather than money-making the object. The requirements are as follows: Young men must be at least eighteen years of age, must observe College regulations, must agree to work at least thirty hours a week in the shops, and to stay at least forty weeks. No charges of any kind are made; nor is any pay given to the apprentices. The apprentices will be given instruction in blacksmithing until simple forgings can be made and tools of various kinds shaped and tempered. Practice in the foundry will include regular floor and bench molding of general machine castings, core making, and cupola management; finer bench molding in brass may also be practiced, including the mixing of various alloys. In the machine-shop, vise work, chipping, filing, fitting and scraping will be followed by lathe work in great variety. The use of the many tools with which the shop is equipped—lathes, drill-presses, planer, shaper, milling machine, and universal cutter-grinder—will be taught. The shop builds regularly a number of machines, and a considerable variety of work is always in progress.

In the Printing Office.—In our printing department superior facilities are offered to young men and young women desiring to learn the practical work of a newspaper office. Instruction is the main object always kept in view, and ample opportunity for the gaining of a measure of experience and skill is afforded by the publication of the weekly *Students' Herald*, the issuing of the monthly *Industrialist*, the execution of the wide range of job printing needed to supply the various College departments with blanks and stationery and the College societies with programs, notices, etc., and in the varied operations necessary to do all this economically and expeditiously. As in the

case of the shops, the advantages of the printing office are offered free to a limited number of those who cannot enter regularly into the College classes. Here also instruction rather than money-making is the object. The requirements are the same as above mentioned.

In both shops and printing office a course of at least eighty weeks is recommended.

POSTGRADUATE COURSES.

Arrangements can be made for advanced study in the several department at any time, and outlines of courses will be furnished on application. The electives of the Extended Course are open to graduates, and special opportunities will be given for investigation and research. Every facility for advancement in the several arts taught at the College will be afforded such students, though they are not required to pursue industrial training while in these courses.

DEGREES.

The degree of bachelor of science is conferred upon students who complete the full course of four years and sustain all the examinations. This degree entitles the holder to credit for studies pursued in any application for state teacher's certificate. (See Laws of 1893.)

Students who extend the course one full year will receive mention on the diploma of special proficiency in those lines of study which they have pursued as an elective for not less than three terms.

The degree of master of science is conferred in course upon graduates who comply with the following conditions:

1. Upon candidates resident at least one year, the degree may be conferred at the end of a two-years postgraduate course; upon non-resident candidates, the degree may be conferred at the end of a three-years postgraduate course; upon candidates who have taken a five-years Extended Course or its equivalent, it may be conferred at the end of a one-year postgraduate course. These courses must be outlined by, or be acceptable to, the Faculty.

2. Each candidate shall furnish evidence satisfactory to the Faculty of proficiency in one of the following arts: Agriculture, horticulture, engineering, architecture, designing, household economics; and in a science or group of sciences related thereto. Either a science or an art may constitute the student's major study; in either case his studies are expected to bear upon the distinctive work of the institution.

3. Each candidate must present for consideration by the Faculty a satisfactory thesis, involving original research in the line of his major study, and shall deposit a perfect copy in the College library.

4. Application to the Faculty for sanction of the lines of study and research should be made as early as the 1st day of November.

5. The subject of the thesis must be settled upon as soon as the 1st day of January preceding the commencement at which the degree is expected.

In a resident postgraduate course of study, as provided for by rule 1, the work required shall be the equivalent of that necessary to pursue three full studies, the time in the aggregate to be divided approximately into three equivalents, two to the major and one to the minor study.

Outlines of direction for study and research in various arts and sciences, with special adaptation to the wants and opportunities of individual applicants, will be furnished, at request, to all graduates; and professors in charge will gladly aid by correspondence in any researches undertaken.

The degree of master of science may be conferred upon the graduates of other colleges of like grade with our own, provided the applicant shall first satisfy the Faculty of his proficiency in the industrial studies distinctive of this institution, on the following conditions:

1. The applicant for the master's degree must be a graduate of at least three years' standing, and a resident of Kansas.

2. His postgraduate study shall have been in line with that required of graduates of this College, as published in our catalogue.

3. He must make application for the degree on or before the 1st day of January preceding the granting of the same. The application must be accompanied with a statement of his course of study, the work upon which the claim for the degree is based, and the subject selected for his thesis.

4. By April 1, an abstract of the thesis must be submitted to the Faculty.

5. Before May 15, the applicant shall present himself for examination. The examination shall be thorough and extensive, and shall be conducted by a special committee of the Faculty.

SPECIAL COURSES.

Persons of suitable age or advancement, who desire to pursue such branches of study as are most directly related to agriculture or other industries, may select such studies under the advice of the Faculty.

Outline of Instruction.

Agriculture.

1. *First Principles of Agriculture.* First year, winter term. Treating of plant growth; the origin, formation, composition, tillage and improvement of soils; the production, care and application of farm manures; the selection of seed and raising of ordinary farm crops; selection, breeding and feeding of farm animals; farm dairying; marketing of farm products. A brief view of the elementary principles of scientific agriculture as applied to Kansas conditions. Five hours per week. Text-book, Voorhees' First Principles of Agriculture. Lectures.

2. *Tillage and Fertility.* Second year, fall term. The management of the soil for maintaining and increasing its productivity, with special study of the conservation of moisture. Includes a study of the nature, functions, texture and wasting of soils, with the amount and availability of plant food in soils; practical methods of rendering more plant food available; plows and plowing, and other implements and methods of tillage; the conservation of soil moisture; farm manures; nitrification; cover crops, fallows, and improvement of soils by clovers and alfalfa; rotations. Five hours per week. Text-books, Roberts's Fertility of the Land, and King's The Soil. Lectures.

3. *Dairying.* Second year, winter term. Milk—its secretion, nature, and composition; causes and conditions influencing the quality and quantity of milk; handling of milk for the market and for butter-making, including milking, straining, aerating, cooling, preserving, and shipping; creaming of milk by gravity methods and by the separator; cream ripening and churning; washing, salting, working, packing and marketing butter. Five hours per week. Text-book, Wing's Milk and its Products. Lectures. Class work will be supplemented by work in the dairy room, where students will be given practice in running the hand separator, ripening and churning cream, washing, salting, working, printing and packing butter, and care of dairy utensils and machines, carrying on all operations as they should be conducted to secure profitable returns on Kansas dairy farms. Analyzing by the Babcock method milk, cream, skim-milk, and buttermilk, with the object of learning how to avoid the large losses frequent on many dairy farms.

4. *Crop Production*. Second year, spring term. What crops to raise; preparation of the soil; selection of seed; methods of planting; treatment after planting and harvesting of grain, grass, root and forage crops; improvement of the seed of farm crops by selection, crossing, breeding, and special treatment. Careful study required of the methods of crop production used on the College farm, and notes on observations of our experimental field work. Five hours per week. Lectures and study of experiment-station publications treating on the subject.

5. *Stock Feeding*. Third year, winter term, half study; spring term, full study. The properties of feed stuffs, and their combination to secure good returns at least cost with products having the desired qualities; effect of foods on quality of products; preparation of feeds; methods of feeding; care and shelter of farm animals; construction of farm buildings and appliances to secure best returns from feed and for saving labor; review of experimental work in stock feeding. Five hours per week. Text-book, Henry's Feeds and Feeding. Lectures.

6. *Breeds and Breeding*. Third year, spring term. History and characteristics of the breeds of live stock, and their adaptability to Kansas conditions; laws of heredity, atavism; law of correlation; variation; conditions affecting fecundity; in-and-in-breeding and cross-breeding; form as an index of qualities; selection and judging of live stock; compiling pedigrees. Five hours per week. Text-book, Miles's Stock-Breeding. Lectures.

7. *Agricultural Economics*. Fourth year, spring term. Selection, equipment and management of the farm; farm labor, buildings, and machinery; field and feeding experiments; study of the markets for farm products; agricultural history. Five hours per week. Lectures. Library references.

8. *Dairying*. Fourth year, fall term. This occurs in the household economics course. It will be in most respects identical with course 3, dairying, in the second year of the agricultural course, with such modifications as may be necessary to particularly adapt it to the needs of young women.

Means of Illustration. Two hundred and eighty acres of land used for farm purposes, with plats under experiment in grains, grasses, and forage crops; and illustrating various methods of culture and rotation.

A barn 50 x 75 feet, expressly arranged for experimental uses; and connected with it a general-purpose barn, 48 x 96 feet, for grain, hay, horses, and cattle. Both buildings are of stone, and are provided with an electric motor, run by the central heating plant of the institution.

The barn is equipped with improved machinery for shelling, grinding, thrashing, and cutting for the silo.

Two piggeries—one of ten pens, for experimental uses, and one of six pens, with separate yards, for general purposes.

An implement house 22 x 50 feet, of two stories; and corn-cribs.

Farm implements of improved patterns.

Collections of grains, grasses, and forage plants.

The Dairy School.

The Kansas State Agricultural College will conduct its second annual dairy school, January 3 to March 25, 1899, the plan being to give thorough, practical instruction adapted to dairying on Kansas farms.

Many Kansas farmers sell their milk to creameries. The need of these farmers is knowledge of feeding, handling and selecting dairy cows, and of the care of milk. Especial attention is given this part of the work.

The dairy school is designed for private dairymen only. The College at present does not possess facilities for giving instruction in creamery or factory work, and those desiring such instruction are not expected.

GENERAL INFORMATION.

Expenses. Text-books will cost \$1.90, blank books for recording lectures, 50 cents, and each student should take a dairy paper, which will cost \$1. Each student will need two white suits and caps for use in the dairy room. These can be purchased in Manhattan. Unnecessary breakage will be charged at cost. Board and rooms can be secured for \$2.50 and upward per week, and laundry costs about 50 cents per week. Incidental expenses will be high or low, as the individual determines. The total of all expenses for the entire time—exclusive of railroad fare in coming and returning—need not exceed \$40, and with close economy can be made less. Students in the dairy course cannot expect to earn any part of their expenses while at the College, as every hour will be needed for class work, practice work, or study.

Admission. Any person eighteen years of age or older, of good character, who wishes to study private dairying, and who has sufficient knowledge to understand the lectures and text-books used, is admitted without examination. An applicant should have a common-school education and should be able to handle readily problems in fractions, decimals, and percentage. Examinations will be held at intervals during the term. *Students not doing satisfactory work will be promptly dismissed.*

Equipment. A model private dairy, with the best forms of apparatus for handling and testing milk and making butter; a dairy herd of grade cows. During the dairy-school term this herd will be handled to show the effects of Kansas dairy feeds upon quality and quantity of milk and butter. Students in the dairy course have free use of the College library, containing 17,500 books, and in which are kept on file all the leading dairy and farm papers.

COURSE OF STUDY.

Principles of Agriculture. Treating of soils, crops, tillage, and manures; the selection, laying out, equipping and managing of Kansas dairy farms. Five hours per week. Professor Cottrell, Assistant Otis. Text-book, Voorhees' First Principles of Agriculture. Lectures.

Dairying. Milk—its secretion, nature and composition; causes and conditions influencing the quality and quantity of milk; handling of milk for the market and for butter-making, including milking, straining, aërating, cooling, preserving, and shipping; creaming of milk by gravity methods and by the separator; cream ripening and churning; washing, salting, working, packing and marketing butter. Three hours per week. Professor Cottrell, Assistant Otis. Text-book, Wing's Milk and its Products. Lectures.

Bacteriology. Relations of bacteria to methods of keeping milk; ripening cream and cheese; flavoring butter; diseases of milk; general health of man and animals; principles of disinfection. Two hours per week. Doctor Fischer. Text-book, Russel's Bacteriology. Lectures.

Feeds and Feeding. Properties of common feed stuffs; their effect on character and yield of milk and butter and their adaptability to Kansas conditions of dairying. The compounding of dairy rations to secure good yields at least cost with products having desired qualities. Three hours per week. Professor Cottrell, Assistant Burtis. Text-book, Henry's Feeds and Feeding. Careful study of the feeding of the College dairy herd will also be required.

Breeds and Breeding. Characteristics of leading breeds of cattle and their adaptability to Kansas dairy farming; dairy form and the selection of dairy animals; care and management of the dairy herd; principles of stock-breeding. Two hours per week. Professor Cottrell, Assistant Burtis. Lectures.

Diseases of Dairy Cattle. The common ailments of calves and dairy cows are discussed, and their causes and symptoms explained; remedies and preventives suggested; all from a practical farmer's standpoint. Two hours per week. Doctor Fischer. Lectures.

Butter-Making and Milk Testing. Practice is given in handling the creamer, running the hand separator, ripening and churning the cream, washing, salting, working, printing and packing butter; and care of dairy utensils and machines, carrying on all operations as they should be conducted to secure profitable returns on Kansas dairy farms. Analyzing by the Babcock method milk, cream, skim-milk, and buttermilk, with the object of learning how to avoid the large losses frequent on many dairy farms. Twenty hours per week. Professor Cottrell, Assistant Otis.

Bookkeeping and Commercial Law.

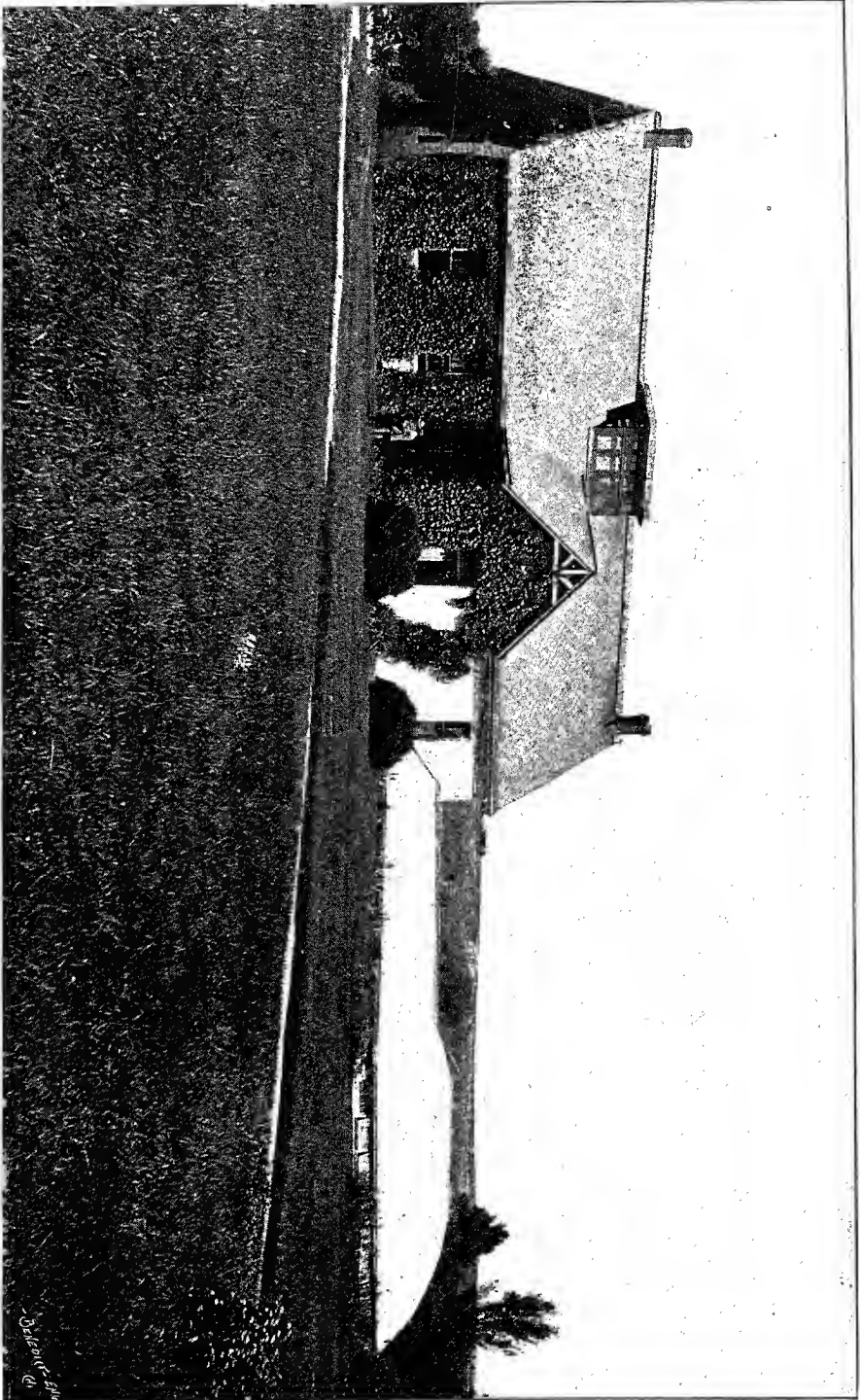
First year, fall term. Every effort is made to have these studies practical. Considerable time is given to those forms best adapted to farm and business life. Each student provides a full set of blanks, and keeps a regular set of books, in which accuracy in calculation and posting and neatness of execution are as essential as correct understanding of the principles.

In connection with the work in bookkeeping, a practical course of twelve lectures in commercial law is given at the end of the term, which includes contracts, farm rights, negotiable paper, real estate, easements, partnership, sales, and business forms.

A text-book is used in connection with the bookkeeping work, while the commercial law is taught by lectures.

Botany.

1. *Elementary Botany.* Instruction in this is given in the spring term of the first year and the fall term of the second year, two days each week; and is the same for the general and agricultural courses. The classroom work is supplemented by daily field work, which in the main runs parallel with the text-book used. The aim in the field work is to teach the student how to observe, and how to draw conclusions from his observations. The following are a few of the subjects studied: Germination of corn, bean or other common seed; opening of buds; falling of leaves; various fruits and their adaptations for dissemination; pollination and adaptations for cross-fertilization. These notes and observations, together with the necessary drawings, are submitted from time to time for examination and criticism. In addition to this, each student prepares a herbarium of not less than fifty species of native plants. These are named by the aid of Gray's Manual of Botany, sixth edition, or by a key to the genera of Manhattan plants, prepared by the professor of botany. The students are required to provide themselves with pocket lenses, under the direction of the professor in charge.



HORTICULTURAL HALL AND GREENHOUSE.



STUDENTS AT WORK IN THE GARDENS.

2. *Agricultural Botany*. Second year, winter term. Two hours per week are devoted to this in the agricultural course. The subjects treated are those which have a direct bearing upon agriculture, such as grasses and forage plants, economic plants, weeds, etc.

3. *Cryptogamic Botany*. Third year, spring term, agricultural course. This will include a study of the common injurious fungi that affect cultivated plants. Two hours per week will be given to class work and five hours per week to laboratory work.

4. *Advanced Botany*. Third year, winter term, agricultural course; Fourth year, winter term, general course. The work is identical for these two classes. During this term the minute structure of plants is studied in the laboratory by the aid of the compound microscope. This includes an examination of the vegetable cell and of various tissues and tissue systems, and of the cell contents, such as protoplasm, chlorophyll, starch, crystals, etc. Each student has the use of a compound microscope, with the necessary tools and reagents. Instruction is given by lectures. Each student is required to prepare a herbarium of not less than twenty-five species of twigs. These are named by the aid of a pamphlet prepared by the professor of botany. A good herbarium and a large greenhouse are drawn upon for material for study.

EXTENDED COURSE. 5. *Morphology and Ecology*. Fall term, three days per week. The former includes a study of the organs of plants, their modifications to perform various functions, and a comparison of these organs in plants of various degrees of development. The latter is that part of vegetable physiology which treats of plants as organisms, and would include such topics as germination, pollination, insectivorous plants, symbiosis, and adaptation to climate. The second half of the term will be devoted to the subject of ecological plant geography, which will include a study of plant communities as a result of adaptation to environment.

6. *Systematic Botany*. Spring term, three days per week. A study is made of the natural orders of phenogamous plants, their characters and relationships.

7. *Vegetable Physiology*. Fall term, two days per week. This deals with the chemical and physical problems presented in living plants, such as the absorption of food, elaboration of organic material, transfer of food, action of light. This course should be preceded by the required physics, the advanced inorganic chemistry of the fall term, and the required fourth-year botany. In the spring term a course of experimental physiology will be offered, consisting of laboratory experiments illustrating the preceding course.

8. *Cryptogamic Botany*. Winter term. During this term the principal types of fungi, algæ, mosses and ferns are studied. This course should be preceded by the required botany of the fourth year and the first term of the advanced zoölogy.

9. *Economic Botany*. Spring term, two days per week. A study of the economic products of the vegetable kingdom, their origin, history, and uses. This should be preceded by forestry and systematic botany. Those who do not wish mention of special proficiency in botany may be admitted to the courses without the requirements in chemistry, physics, zoölogy, and horticulture.

Means of Illustration. A general herbarium, consisting of a large collection of plants of the United States and other countries; a Kansas herbarium, containing specimens illustrating the distribution and variation of plants throughout the state; a twig herbarium, illustrating woody plants in their winter condition; and a seed herbarium, containing a representative collection of seeds and fruits — altogether the herbarium contains about 60,000 specimens; also twenty-eight compound microscopes, four dissecting microscopes, tools, reagents, etc. The department is provided with a zinc culture room, and the ordinary apparatus for bacteriological work; a dark room and apparatus for photography; microtomes and other apparatus for microtomic work; about 150 charts, illustrating all departments of botany; a botanical library of over 1000 bound volumes and numerous pamphlets.

Chemistry.

COURSES IN PURE CHEMISTRY.

1. *General Introduction*. This course, given regularly every fall term (and repeated in the winter term), consists of about fifty lectures and experimental demonstrations, supplemented by both oral and written recitations. After a few weeks the periodic system of the elements is made the basis of chemical classification. Special attention is given to the non-metals and the general foundations of chemical science.

2. *Chemistry of the Metals*. This course immediately follows course 1, and is taken twice a week. It not only serves to elucidate chemical principles, but it is the basis of instruction in metallurgical processes and industrial applications of the metals.

3. *Elementary Laboratory Work*. A course of laboratory work one afternoon per week (two consecutive hours) is required of all students pursuing the study of the elementary inorganic chemistry.

4. *Advanced Inorganic Chemistry*. In the spring term, lectures and laboratory work in this subject will be offered as an elective to

third-year students and postgraduates. The course will include assigned reading of a text-book in inorganic chemistry. Prerequisites: All the preceding courses.

5. *Introduction to Organic Chemistry.* This course is given regularly three times weekly in the winter term, and repeated in the spring term. Especial emphasis is given to the fatty compounds and the study of general reactions, as a separate elective course on aromatic compounds follows. Prerequisite: Course 1.

6. *Aromatic Compounds.* This course (offered in the fall term) is supplementary to the preceding and is an elective for third-years and postgraduates. Prerequisite: Course 5.

7. *Historical and Theoretical Chemistry.* This course (offered in any term when three or more students apply for it) will be adapted to the convenience of instructor and students concerned. Prerequisites: All the preceding courses, also 11 and 16.

8. *Advanced Laboratory Work in Pure Chemistry.* Advanced laboratory courses, supplementary to the advanced classroom work, will be offered in any term to properly qualified students. Students undertaking this line of work must spend at least twenty or thirty hours of work under the direction of the professor in charge in order to receive credit.

COURSES IN ANALYTICAL AND APPLIED CHEMISTRY.

11. *Analytical Chemistry.* This course is designed not only to impart the principles and practices of qualitative chemical analysis, but to give opportunity for extending the student's knowledge of inorganic chemistry. It regularly follows course 2, but may be taken at the same time with that course, and requires two hours per week.

12. *Laboratory Work in Analytical Chemistry.* This course must be taken with course 11, and occupies eight hours per week. The exercises are so arranged as to pass from the simple to the more difficult, and at the same time to facilitate comparative study of the various basic and acid radicals. Opportunity is afforded for advanced work to such students as desire it.

13. *Agricultural Chemistry.* In the fall term of the third year a series of lectures is given on the formation and characteristics of different types of soil, the soil requirements of a variety of crops, the modes of soil enrichment and amelioration, and the general relation of crops to earth, air, and water. These lectures are illustrated by experiments. Courses 5 and 11 must precede this course.

14. *Chemistry of Foods.* This course is given by lectures during the first half of the winter term, and embodies a presentation of the chemical composition of foods, the changes which they undergo in

cooking and digestion, and their adaptation to the various needs of the animal body. Course 5 must be finished before undertaking this course.

15. *Advanced Chemistry of Foods.* This course may be taken by advanced or postgraduate students. It consists in study of the literature treating of food and nutrition from a chemical standpoint, and is accompanied by laboratory work. The latter feature may be enlarged to almost any extent that the student may desire. The higher lines of work in this course require some previous training in quantitative analysis.

16. *Quantitative Analysis.* May be taken up at any time after the completion of courses 11 and 12. After the necessary preliminary training, the student may give special attention to any line of quantitative analysis, such as that of foods and fodders, soils and fertilizers, ores, water, gases, etc. The investigation of special chemical questions is encouraged.

Means of Illustration. Laboratory tables, with all the necessary equipment for eighty students in qualitative analysis and eight in quantitative analysis; facilities for assaying; illustrative apparatus, both general and special; a well-selected mineralogical collection, representing all but the rarest species, in various forms, colors, and structures; a good collection of rocks; a set of the Stassfurt minerals, and the fertilizers prepared from them.

Geology and Mineralogy.

1. *Dynamic Geology.* This course is given regularly either in the winter or spring term to third-year students (according to course of study). As the name implies, special attention will be given to the physical and chemical aspects of geological study, rather than to the biological and historical sides of the subject. The aim will be to teach the students something of the relations of geology to other sciences and of the importance and scope of geology, rather than to enter into the details and technicalities of geology. Especial emphasis will be given to the relation between this science and physical geography.

2. *Crystallography.* An elective course in crystallography is offered by the professor of pure chemistry whenever a sufficient number of students of the higher college classes apply for it.

3. *Blowpipe Analysis and Determinative Mineralogy.* An elective course offered by the professor of applied chemistry. Prerequisite: Chemistry 11.

Drawing, Descriptive Geometry, and Architecture.

1. *Free-hand Drawing.* The course in free-hand drawing comprises two or three terms of work in surface designing and ten lessons in sketching from the object. The surface designing is taught in the first year. The student begins with forms involving the straight line and the arc. He is led to note the effect of geometrical arrangement, repetition, alternation, symmetry, proportion, harmony, and contrast. Later, the conventional ornament is taken up, and more subtle curvatures and complex forms are introduced. Toward the close of the term, natural forms and historic ornament in the flat are studied.

2. *Sketching.* The work in sketching is connected with the study of linear perspective in the spring term of the third year. The models used are geometrical solids and objects of utility and beauty, whose forms bear close relationship to geometrical types. The students are led to recognize the facts, relations and principles involved in the apparent form of the object, to note the distribution of light, shade, shadow and reflection on the same, and deduce the general principles which the observation and comparison of these appearances are found to establish.

3. *Geometrical Drawing.* All first-year students are given one-half term's work in geometrical drawing. This work comprises the construction of perpendiculars, parallels, angles, and polygons; the circle and its secant lines; the ovoid, the oval, and the spiral; various geometrical designs and elementary architectural forms; the use of drawing-board and T square; and the conventional representation of building materials.

4. *Orthographic Projection.* The engineering students of the second year are given three full terms of orthographic projection, comprising the projection, section, development, interpenetration, shade and shadow of the Euclidian solid. Instruction is also given in the manipulations of the blue- and black-printing processes, and in drafting from the model—a complete eight-horse-power engine. Accuracy of measurement and neatness of execution are required in all work. The third-year students of the general course are given two half terms of projection drawing. The character of this work is the same as that of the corresponding term of the engineering course.

5. *Axonometric Projection.* In the third year of the engineering course axonometric projection is taken up. The study comprises a complete exposition of the various systems of representing forms of three dimensions. The practical advantages of each are pointed out by illustrative problems, especially with regard to isometric projection, a system of graphic representation which is gradually forcing its way

into the workshop. Various exercises in line and brush shading are connected with this work.

6. *Descriptive Geometry.* This study forms the graphic work of the winter term of the third year in the engineering course. It comprises the usual problems on the straight line, circle, rotation, collineation, and surfaces of revolution. Several weeks are given to the study of warped surfaces, their sections, intersections, and relations.

7. *Linear Perspective.* This study is taught on mathematical bases, and is intended to furnish the scientific answers for the questions which constantly confront the student of drawing from the object. It comprises the subjects of vanishing points, vanishing traces, measuring points, cylindric perspective and perspective corrections, shades and shadows in perspective.

8. *Architectural Course.* The courses of study for all engineering branches must necessarily be the same with regard to all work of a preparatory or general character, but differ with regard to the professional branches. Students who intend to take architecture in place of mechanical engineering may make substitutions for work, as stated on page 40. The department of industrial art is well equipped to teach the branches named. It owns a rapidly growing collection of illustrative building material, complete sets of drawings and blue prints of most of the Kansas state buildings, a photographic camera, a dark room equipped with running water and ruby light, etc. The substantial buildings of the institution and its complete system of heating and lighting furnish additional illustrative material. Students who intend to take this course should study landscape-gardening with the department of horticulture.

9. *Home Architecture.* Third year, fall term. The students in the course in household economics will be given a course of lectures on practical home building, and will be required to design and draw a set of plans, elevations and details of a small residence, with modern provisions for heating, ventilation, and drainage.

NOTE.—The College furnishes drawing-board, T square, triangles and water-colors for the graphic work done at the College, but all tools for home use, including drawing-board, T square, triangles, compasses, and protractor, must be furnished by the student.

Means of Illustration. Models, plaster casts, patterns, charts, collection of ornamental tiles, marbles, and terra-cotta forms. One of the classrooms is provided with top light, and furnished with twenty-five Dietzgen drawing-tables.

Economic Science.

The work in economic science occupies four terms, as follows:

1. *Elementary Economics.* Fall term, first year, two hours a week. Lectures introductory to the study of industrial questions.

2. *Principles of Economics*. Fall term, third year. Introduction to the general subject, with elaboration of certain aspects. Pains are taken to compare conflicting views and point out sources of information on all sides of vexed questions. Lectures and library reading. Each student keeps a note-book and reading record.

3. *Economic and Social Problems*. Winter term, fourth year. In this course attention is given to the questions of land, labor, capital, competition, poverty, wealth, etc.; to proposed palliative measures; and to the single-tax, anarchism, and socialism. Lectures, theses, and reading.

4. *Finance*. Spring term, fourth year. This course includes the historical and theoretical study of money and other media of exchange; of banking, taxation, tariffs, and public debts.

EXTENDED COURSE. A full elective course will be given through the year for those who have already taken work in political economy. It will consist, in part, of study throughout the year of the recent economic theories underlying industrial and financial problems; and in part of special investigations and reports, from members of the class, of problems specially pertinent to Kansas and adjoining states. Courses will be offered as follows:

5. Fall term. The telegraph, railroads and city monopolies will be studied.

6. Winter term. Farm mortgages, prices, and other agricultural problems.

7. Spring term. Life and fire insurance, building and loan associations, and other problems of coöperation and saving.

In all the above courses the attempt is made to enable the student to handle the literature of the science, to examine the subject in hand from different points of view, and to form intelligent judgments regarding economic questions. The work of the two departments of history and political science and of economic science is closely correlated.

English Language and Literature.

1. *Analysis*. Fall term, first year. This includes the origin and growth of the language, the history of its grammatical forms, the analysis of sentence making, and the discussion of idioms and difficult constructions, together with such contraction, transposition and transformation of sentences as will aid in securing variety of expression.

2. *Composition*. Winter term, first year. One term is given to the study and practice of composition, including the elements of rhetoric.

3. *Structure.* Spring term, first year. One term's work is given to careful study of words and their elements—roots, prefixes, and suffixes. The most fruitful primitives from Saxon, Latin and Greek are learned, and also the laws governing the formation of derivatives. Attention is given to the history and changes of words, and daily exercises teach careful discrimination in their use.

4. *Theme Writing.* Fall term, second year. This will consist of daily exercises in deducing, outlining and writing out themes, from all kinds of subjects, the object being to teach the logical development of composition subjects and to drill into habits of accurate and easy writing in the various forms of discourse. Both classroom and home work will be required, and all work will be under the immediate direction of the professor in charge.

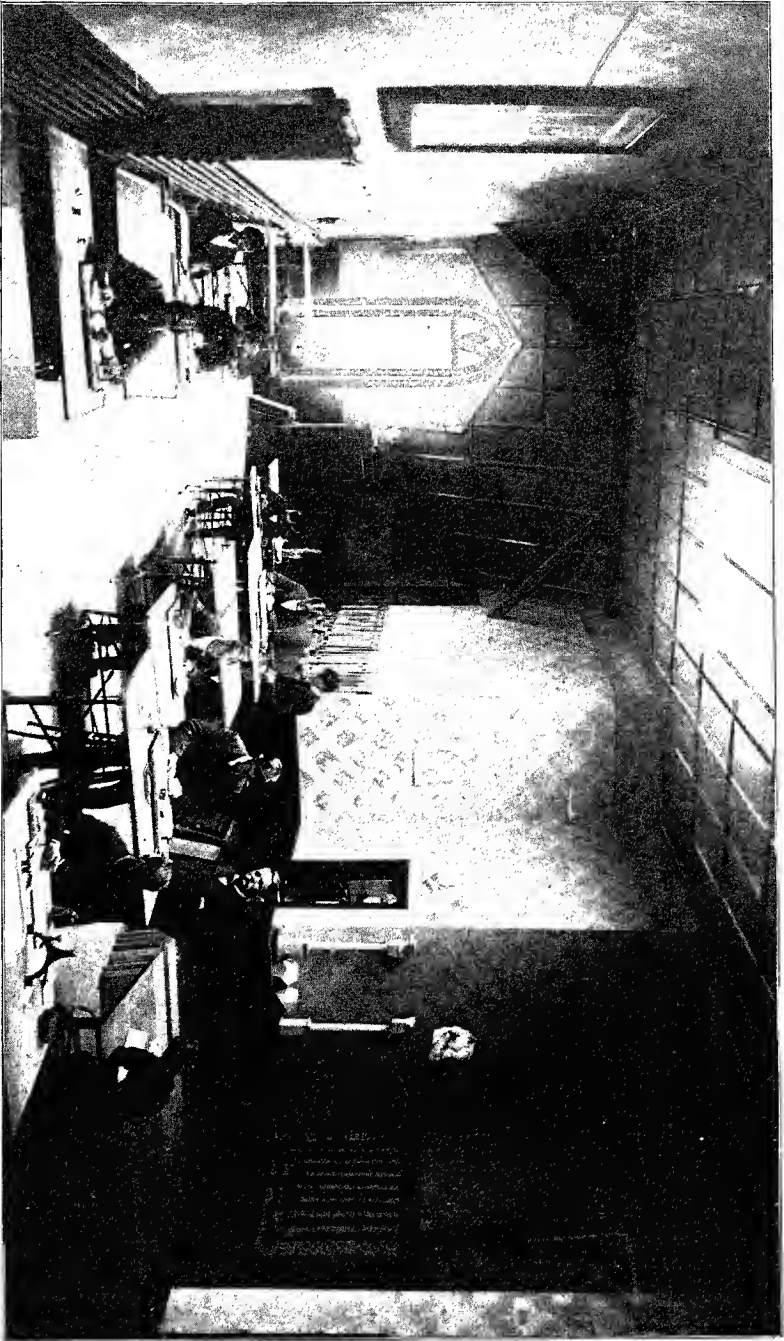
5. *Rhetoric.* Fall term, third year. This is the study of higher rhetoric, including discussions of the fundamental processes of composition and the essential elements of the different forms of discourse. Selections from good authors are studied for the application of principles and the outlines of criticism.

6. *General Literature.* Winter term, fourth year. This includes the history and development of English literature, with illustrations from the best authors. Students are led to appreciate the power of our mother tongue, and at the same time gain some acquaintance with the best thought of the world.

7. *Nineteenth Century Literature.* Spring term, fourth year. This consists of a study of modern English and American literature. Laboratory methods will be used in the study of representative authors, together with the reading and discussion of standard works.

German.

Optional. Two years of work are offered. The object is to enable the student to read German literature as he would read English. With this end in view he begins not with the grammar but with a text provided with a strictly literal translation; and, aided by his teacher, reads German as German daily throughout the course; to test the accuracy of his knowledge, he also prepares written verbatim translations of the text. Such grammar as is requisite to a reading knowledge of the language is learned principally as one learns the fundamentals of the grammar of his mother tongue, viz., by observation and use. The notion that a foreign language to be understood must be translated by the student is combated from the beginning. Fischel's German Reader forms the basis of the first year's work. This is followed by more difficult matter.



DRAFTING ROOM.

History and Political Science.

1. *United States History.* An elementary training in United States history is required for entrance. In the spring term of the second year the constitution and political history of the nation is studied.

2. *General History.* Winter term, second year. The objects of the course are to fix in the mind the main facts of history; study their meanings, relations, laws, and lessons; train the memory, reason, imagination, and sympathies; help the student to understand references in current literature; comprehend the origin and development of existing states, peoples, and institutions; and by the light of the past learn something of the future—what it may be and what it should be—the when, the why, the ought, and the how. The work consists of lectures, text-book study, reference reading, analyses, discussions, solution of problems, and original research and generalization.

3. *Nineteenth Century History.* Spring term, third year. In this course the chief nations of the world, the leading events and great movements of this richest of all the centuries, are studied more fully than is possible in the preceding course. The methods employed are similar to those just named under general history; but still more attention is given to the philosophy of history and its ethical aspects, the drift of our time, and the possibilities of the future; and a wider use of the library is substituted for text-book study—reference reading in such books as Buckle's *History of Civilization in England*, Carlyle's *French Revolution*, Sloan's *Napoleon*, the works of Green, Guizot, McMaster, Mackenzie, etc., being required. An effort is also made to create a strong interest in the lives of Lincoln, Gladstone, Bismarck, Garibaldi, and other great men; in the works of Darwin, Spencer, Laplace, and other scientists and philosophers; and in the writings of Lowell, Emerson, Hugo, Ruskin, Tennyson, Mazzini, Goethe, Tolstoi, Sienkiewicz, etc.—an interest that may lead the students to do much valuable reading in history, biography, science, philosophy, and general literature; one of the main ideas of the work being that if a youth be given an appetite for knowledge and trained a little in methods of acquiring it he will make the world his university and every library his text-book.

4. *Civics.* Winter term, third year. The science of citizenship; law and government, municipal, state, and national; their origin and development; what they are now and what they ought to be. Lectures, with text-book work, analyses, and discussions. The students choose selectmen, governor, supreme court, etc., hold town meetings,

organize as a state house of representatives, and afterwards as a national house of representatives; bills for better roads, proportional representation, income tax, electric ballot, initiative and other live issues are introduced, discussed, and acted on as in Topeka and Washington; the constitutionality of enactments is tried before the supreme court; parliamentary usage is followed as far as practicable.

Horticulture and Entomology.

All horticultural subjects are treated chiefly by lectures, supplemented by references to standard works. Essays are prepared by students on the various topics considered throughout the course. The laboratory and industrial work pursued during the entire course combine theory with practice.

1. *Horticulture.* Second year, winter term, agricultural and household economics courses. The botany previously required, together with industrials taken by young men in orchards, nursery, and greenhouses, fit the student for the study of the general principles underlying a systematic study of plant growth, propagation, environment, and improvement; involving a study of seeding, cutting, budding, grafting, layering, etc.; the management and location of nurseries; and the training, selection, packing and shipping of stock; their special treatment being illustrated by field study.

2. *Vegetable Gardening and Small Fruit Culture.* Third year, fall term, agriculture and household economics courses. The first half of the term is devoted to vegetable growing. Subjects treated include the raising of vegetables for home and for market; with location, soils, manures, tools, irrigation, etc., best suited for crops grown in kitchen and market gardens; the construction and manipulation of hotbeds, cold-frames, and winter gardens; the growing of early and late crops, their special treatment, methods of cultivation, planting, transplanting, harvesting, and marketing; a study of varieties suitable to local conditions; and the origin, nature and methods of improvement of vegetables. The treatment of the above subjects is supplemented by field work in the gardens. Small-fruit culture occupies the second half of the fall term. The subject is treated in much the same manner as vegetable gardening, in reference to small fruits for the home and market, taking up the cultivation of small fruits, and improvements and methods employed in propagation.

3. *Pomology.* Fourth year, fall term. The course embraces a study of the origin, culture, identification and classification of orchard fruits. The student becomes familiar with orchard fruits through field work, and by the aid of fruit models in the horticultural museum.

4. *Horticulture*. Fourth year, winter term. The greater portion of the term is devoted to a practical treatment of orchard work; location, soil, planting, pruning, cultivation and fertility of the orchard; a study of the value of windbreaks, how best made, trees suited for same in Kansas; reasons for horticultural operations and methods employed in producing variation and improvement of domesticated plants; the picking, grading, packing, storing, shipping and marketing of fruit crops; list of varieties of fruits suitable for Kansas orchards; spraying of plants for fungous diseases and insect pests, with practical demonstrations; viticulture, the adaptation and growing of grapes in the West, a study of distinctive characteristics of varieties, their value for home and market use; a general treatment of landscape gardening, location and construction of walks and drives; planting and grouping of ornamental plants in beautifying the home and park grounds, involving a study of trees and shrubs suited to Kansas conditions, students familiarizing themselves with trees and shrubs in the arboretum and on College grounds.

5. *Forestry*. Fourth year, spring term. In this course are considered the past and present influence of forests on the climate and conditions of countries; the planting, management and preservation of forest tracts; a study of native and introduced species of trees of value for forest plantations and shelter belts; the growing and handling of seedlings for forest planting on a commercial plan. The work is greatly assisted by object lessons from the government forestry substation located on the College grounds. Text-book, Hough's *Forestry*, supplemented by lectures.

6. *Floriculture*. Third year, winter term, household economics course. Lectures in the classroom are supplemented by practical exercises in the greenhouses and gardens, treating of the propagation and culture of flowers, including the treatment of seeds, cuttings, mixing of soils, potting, repotting, watering, cut flowers, packing, and the many operations that attend amateur and commercial flower gardening.

7. *Ornamental Gardening*. Third year, spring term. Among the subjects treated are: Methods employed in laying out of private and public grounds; construction of lawns, walks, and drives; the planting and training of ornamental trees, shrubs and flowers used in beautifying the landscape; and the management of portico, window and roof gardening. Lectures, assisted by stereopticon views and by field work in the arboretum.

8. *Entomology*. Second year, spring term. The course is divided into three divisions—classroom, laboratory and field instruction. The general principles of insect life and classification are first studied.

The subject is treated from an economic standpoint in the relation of the science to agriculture and horticulture. Instruction in classroom is rendered effective by use of specimen cases and a series of charts in discussing the groups of beneficial and injurious insects, insecticides, and methods of combating. Laboratory work is given special attention, aided by insectary and insect collection. Lenses used in botany are required to carry on this work. Each student makes a collection of different species in connection with his field work. Smith's Economic Entomology is the text-book used, supplemented by lectures. In the short time allotted to this branch in the regular course, it is impossible to do much work in advanced classification. Students are, however, given a good basis for more advanced work, which may be elected during their course or taken up as postgraduate work.

Industrial Work. In this work students are given practical instruction in the planting and arrangement of nursery stock, digging and planting of trees, pruning and training of trees and vines, transplanting and management of small fruits, use of hotbeds and cold-frames, and general vegetable gardening. Special students during the winter term receive more advanced instruction in the various methods of propagation, in grafting room and greenhouses. Students who show special proficiency in horticulture are often employed as foremen. An industrial course in floriculture is open to young women.

Means of Illustration. Orchards containing 100 varieties of apples, 50 of peaches, 10 of pears, 30 of plums, 40 of cherries, and 15 of apricots.

Small-fruit garden, with 200 varieties of small fruits, including blackberries, raspberries, gooseberries, currants, and strawberries; and vineyard, with 175 varieties of grapes.

Forest plantation of 12 acres, containing 20 varieties, of from 1 to 25 years' growth.

Ornamental grounds set with a variety of evergreens and deciduous trees. Sample rows, containing about 150 varieties of ornamental and useful shrubs and trees, labeled.

Vegetable garden with hotbeds and cold-frames, and experimental beds. Practice rows for students' budding, grafting, cultivating, and pruning.

A well-planned and furnished greenhouse of three rooms, stocked with a fine collection of native and exotic plants; three propagating pits, 12x70 feet, for experimental work, and three others of the same size with commodious workroom adjoining, and equipped with the best improvements for the use of the young women in the practice of floriculture.

A tool room containing 50 individual cases of horticultural tools, besides tools and implements for general use, and pumps and apparatus for spraying with fungicides and insecticides.

Museum, containing a collection of woods from American forests, seeds of many varieties of vegetables, a herbarium of cultivated grapes, and models of leading orchard fruits and vegetables.

Household Economics,

INCLUDING HYGIENE AND SEWING.

The above heading stands for far more than the old one of "Household Economy," both natural science and sociology in their increasing application to the business of every-day life compelling a term that shall include both. To perpetuate the home; to reduce poverty, pauperism, and crime; to give comfortable and happy family life to all faithful workers, and so strengthen the state's quota of true citizens, well taught and well nourished — this is the sum of household economics; and both natural science and sociology are showing the necessities involved. The essentials of such a course fall under the following heads:

1. How to choose healthful locations, and plan convenient, suitably furnished houses.
2. How to ventilate, warm and light in the best manner both public and private buildings.
3. How to provide not only attractive, appetizing food, but that suited to the age and occupation of the eater.
4. How to judge clothing materials and all fabrics for household use, and prepare them in the best manner.
5. How to guard the water-supply, preserving it from taint or infection, and providing a supply suitable for drinking and washing.
6. How to care for milk in the best manner, keeping it free from germs.
7. How to insure rapid and sanitary drainage, and the prompt removal of garbage.

Hygiene is thus seen to be an essential part of the teaching, and some knowledge of chemistry is required by every student entering the course.

1. *Hygiene.* First year, winter term. A course of lectures in elementary hygiene, two hours a week, is given to both young men and young women, in which are explained those general principles of wholesome living which every one should know.

2. *Household Economics.* Second year, winter term. Simple lessons with experiments on chemistry of foods: (*a*) water foods, (*b*) milk, (*c*) albumen, (*d*) fats, (*e*) sugar, (*f*) starch, rice, etc., (*g*)

cellulose. Simple dishes are given under each heading, each member of the class doing individual work. Tables of the form used in industrial teaching at Pratt and other industrial-training schools have been provided and fitted up for individual work, each student being required to work out a rule singly. Fruit canning, preserving, pickling, etc., is part of the work of this term for more advanced students. Bacteriology in its simplest forms is taught, together with the uses and values of the various cleaning agents, sapolio, pearline, borax, ammonia, etc. At each lesson two housekeepers are appointed, who have general oversight of the room.

3. *Household Economics*. Third year, spring term. The same general rules for class are observed. Review work of previous term is given, and, with each new food material used, attention is called to its composition. Prices and how different foods should be purchased are also taught, and the law of harmony in mixing and combining food. The practice work of this term consists in cooking meats and fish simple sauces and gravies, and plain desserts. Short papers are required on tea, coffee, spices, gelatine, etc., their history and use, with review each month of the month's work. Marketing is also taught, diagrams are used, and the class learn different parts of the animal and the best cuts for roasts, soups, stews, etc., with the various methods of cooking.

4. *Household Economics*. Fourth year, fall term. The work of the previous terms is reviewed. The chemistry of yeast and baking-powder is taught. Some simple lessons in invalid cookery are given, and, in connection with this, one or two in the making of flaxseed and other poultices, etc. Doughs and batters are taught in their simpler forms, ending with the first work in bread. In all classes, practice is given in waiting on table and serving in the best manner. The opening in January, 1898, of the college lunch room and kitchen affords an unusual opportunity to advanced students of seeing and aiding in the preparation of food in large quantities, as well as of studying student dietaries as made for the Boston Institute of Technology and adopted by the University of Chicago; with the cost and general care of materials.

One year of industrial work in cooking is required in the household economics course, one term, at least, of which must come in the second year.

5. *Sewing. Industrial Work*. The course of work has been carefully graded, with the idea of developing habits of accuracy and self-reliance. Each pupil is required to keep a note-book, in which she records a description of the work accomplished. A written examination is held at the end of each term. During the first term the

pupil makes a book of models, covering the full course in hand sewing, and consisting of basting, hemming, gathering, darning, patching, etc. Second term: Machine practice, drafting, cutting and making underskirt and drawers. Third term: Drafting, fitting and making dress without lining. Fourth term: Cutting and making corset cover; drafting and making night-dress. After completion of fourth term, pupils who desire to take more advanced work are taught to adapt and use patterns taken from pattern sheets; also the use of a dress-cutting system, and to make a woolen dress. The first term the materials are furnished by the College; after that the pupil furnishes her own materials and makes the garments for herself.

Students in the household economics course take sewing as an industrial throughout the first year.

6. *Dressmaking.* Second year, winter term. Two hours per week. Drafting, cutting and fitting skirt and waist pattern. Use of pattern sheets.

Means of Illustration. Kitchen laboratory, with ranges, cooking utensils, dining-room furnishings, dairy furniture.

Sewing rooms, with eight machines, models, patterns, and cases.

Mathematics.

It is the aim of the department of mathematics to give a thorough training in a small number of subjects, and to develop in the student the ability to attack new problems, rather than to burden his mind with a large number of facts or special methods. It is also characteristic of the methods of the department that an attempt is made to give to the mathematical subjects a touch of human interest, by directing the attention of the student to the historical development of these subjects. For example, the course in plane geometry is opened by a lecture on the history of geometry. The following courses in mathematics will be given next year:

Courses 1 to 3, *Elementary Algebra*. Text-book, Wells's Higher Algebra.

1. Required of all students in fall term of first year. This course includes the fundamental operations, factoring, highest common factor, least common multiple, fractions, and simple equations with one unknown quantity, both integral and fractional. Special attention is paid to the acquirement of a thorough understanding of the principles of factoring, and of skill in the application of these principles.

2a. Required of students in agricultural course, winter term, first year. This is a short course, following course 1, and including the essentials of simple equations with two or more unknown quantities,

involution, evolution, fractional and negative exponents, radicals, quadratic equations, ratio, and proportion.

2*b*. Required in general and engineering courses, winter term, first year. This course covers more thoroughly the following subjects: Simple equations with more than one unknown quantity, involution, evolution, fractional and negative exponents, radicals, and quadratic equations with one unknown quantity.

3. Required in general and engineering courses, spring term, second year. Quadratic equations completed, ratio and proportion, arithmetical and geometrical progression, logarithms, the binomial theorem.

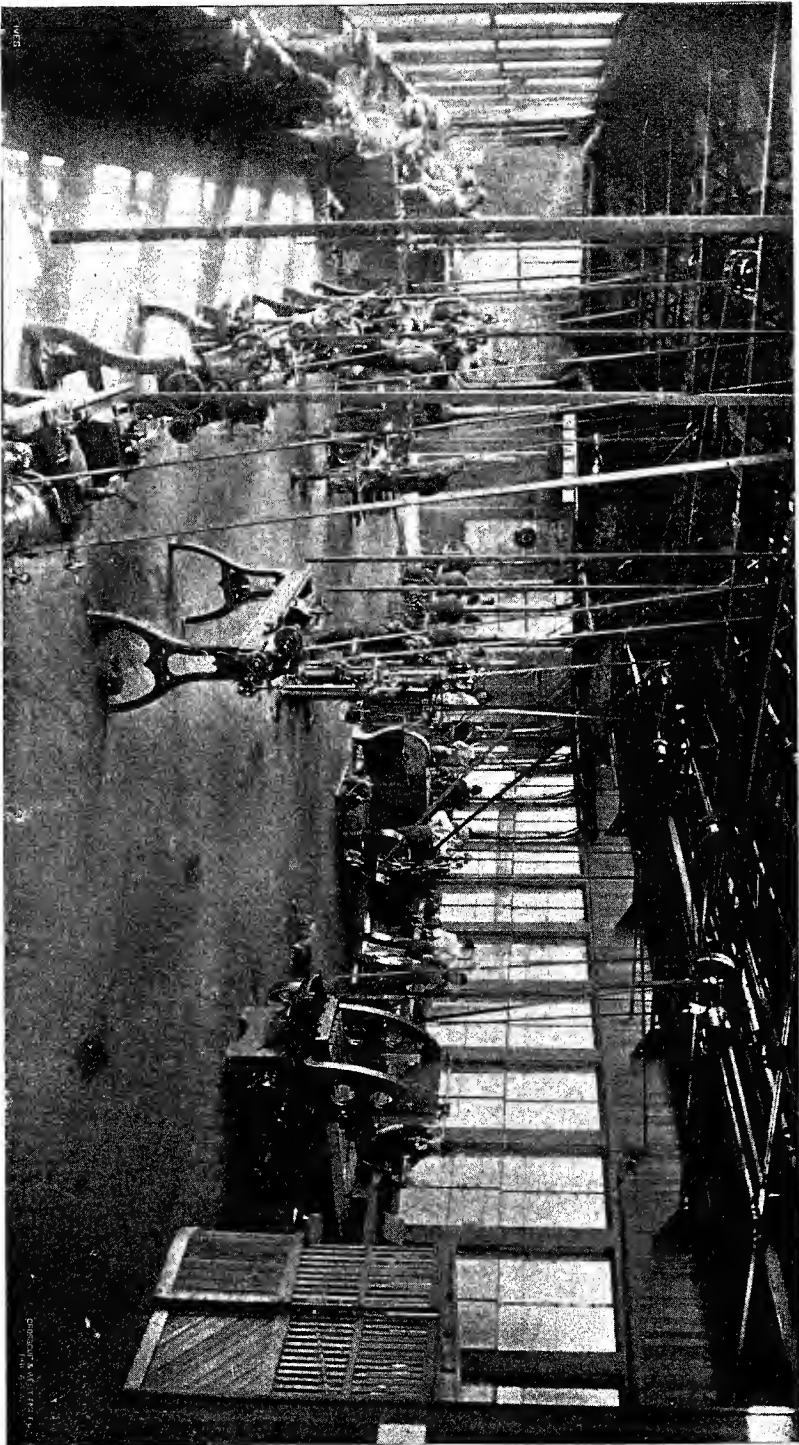
4 and 5. *Geometry*. Text-book, Phillips and Fisher's Elements of Geometry. 4. Required in all courses. In engineering and agricultural courses, spring term, first year; in general course, fall term, second year. First three books of plane geometry. Numerous exercises are assigned for original demonstration and construction by the student. 5. Required in all courses. In engineering and agricultural courses, fall term, second year; in general course, winter term, second year. About one-third of the term is given to the completion of plane geometry, the remainder to solid geometry.

6 and 7. *Trigonometry*. 6. Required of students in general course, fall term, third year. In this course special attention is paid to the applications, both in surveying and navigation. As a practical application of the uses of trigonometry, a course of twelve lessons in surveying is given, in which the student is taught the use of the surveyor's compass, transit, Y level, plane table, and other instruments, with which the department is well supplied. 7. This course differs from the preceding in that less attention is paid to the applications and more to the attainment of skill in handling trigonometric functions and in logarithmic computation. A few lessons are also devoted to spherical trigonometry.

8. *Analytical Geometry*. Required of students in engineering course, spring term, third year; elective in general course. Rectangular and polar coördinates, the straight line and circle, other conic sections, the general equation of the second degree.

9. *Differential and Integral Calculus*. Required of third-year students in engineering course. This course consists of three lectures a week throughout the fall and winter terms, and two lectures a week in the spring term.

10. *Higher Algebra*. For students in the extended course and postgraduate students. This course will consist of two lectures a week during the fall and winter terms, and three lectures a week in the spring term. Permutations and combinations, theory of equations



MACHINE-SHOP.

The floor plan is divided into two main sections: the **MECHANICS HALL PLAN OF SECOND FLOOR** on the left and the **MECHANICS HALL PLAN OF FIRST FLOOR** on the right.

Second Floor Plan:

- Boiler House:** 60' x 40', located at the top left.
- 3. 60 H.P. POWER BOILERS:** Located within the boiler house.
- Coal Storage:** Located to the left of the boiler house.
- Engine Room:** Located below the boiler house.
- Hall:** A central hall connecting the boiler house, engine room, and foundry.
- Foundry:** Includes an **IRON FOUNDRY** and a **BRASS FOUNDRY**, both containing sand pits.
- Pipe House:** Located to the right of the foundry.
- Flask Yard:** Located to the right of the foundry.
- Recreation Room:** A large room in the center, divided into two sections.
- Office:** Located near the recreation room.
- Tool Room:** Located near the recreation room.
- Iron Shop:** 40 x 80, located near the tool room.
- Coal Room:** Located near the iron shop.
- Recreation Room:** Another large room at the bottom, divided into two sections.
- Storage Room:** Located near the recreation room.
- Shed Room:** Located near the storage room.
- Hall:** A central hall connecting the recreation rooms and storage areas.

First Floor Plan:

- Wood Working Shop:** 108' x 36', located at the top right.
- Recreation Room:** A large room in the center, divided into two sections.
- Office:** Located near the recreation room.
- Tool Room:** Located near the recreation room.
- Iron Shop:** 40 x 80, located near the tool room.
- Coal Room:** Located near the iron shop.
- Recreation Room:** Another large room at the bottom, divided into two sections.
- Storage Room:** Located near the recreation room.
- Shed Room:** Located near the storage room.
- Hall:** A central hall connecting the recreation rooms and storage areas.

A north arrow is located in the center of the plan, pointing towards the top right.

MECHANICS HALL
PLAN OF FIRST FLOOR.

and determinants will be some of the subjects treated. The principal part of the course will be given in lectures by the instructors, but occasionally topics will be assigned for presentation by the students.

11. *Modern Geometry.* For students in the extended course and postgraduate students. This course will consist of two lectures a week in the fall and winter terms and three in the spring term. It is thus an exact counterpart of course 10, and it is planned to give these two courses in alternate years.

All the above courses, except course 11, have been given in a more or less modified form during the past year. Courses in other branches of the higher mathematics—in advanced integral calculus, differential equations, theory of functions or elliptic functions may be arranged if desired.

Mechanics and Engineering.

1. *Woodwork.* A definite, graded series of tasks is given in joining, work to dimensions, and simple problems in construction, with the proper use and care of common bench tools, through which each student is advanced according to ability. Practice is given later in general woodwork, carpentry, cabinet-making, turning, and pattern-making.

2. *Blacksmithing.* A similar graded series of tasks in blacksmithing teaches the management of the forge, hammer, and anvil, and gives practice in welding, drawing out, forming, etc. Advanced work includes the working of various grades of steel, tempering, and tool dressing.

3. *Foundry.* The foundry work consists of floor and bench molding for iron and brass. Such castings as are used in the machine-shop and about the institution are made in the foundry. The work includes molding from a variety of patterns, and preparing for and running a heat of from 1500 to 2000 pounds.

4. *Metal Work.* The work includes bench and machine work in great variety. Chipping, filing, scraping and laying out work from drawings precede machine work, in which are used drill-presses, lathes, planer, shaper, milling machine, and cutter-grinder. General machine-shop practice is furnished.

5. *The Industrial Work* of the fall term, second year, is doubled in quantity, and includes lectures on machine-shop tools, their use and care.

6. *The Industrial Work* of the winter term, third year, is doubled in quantity, and includes lectures on machine-shop methods of production, cost of work, etc.

7. *Elementary Analytical Mechanics*, twice a week for two terms, precedes a study of physics. The laws of motion and force are studied.

8. *Hydraulics*. Hydromechanics twice a week, includes problems in flotation, flow from orifices and pipes, weirs and jets, and the application of hydraulic formulæ to practical problems.

9. *Mechanics Applied* to simple farm machinery. A short course showing the application of elementary mechanical principles to farm machinery, and consisting of illustrations and problems, is given to students in the agricultural course.

10. *Machine Design*. This consists largely of drawing-board work, where the principles of drawing and applied mechanics are brought together in the solution and representation of problems concerning the elementary details of machinery, such as fastenings, gearing, belting, cams, etc.

11. *Principles of Mechanism*. This accompanies the work in machine design, and treats of the principles which underlie the various modifications of motion due to the form and connection of parts.

12. *Mechanics of Materials*. This is an elementary course of study in the resistance of materials of engineering and the mechanics of beams, columns, shafts, etc. Part of the time will be given to lectures on the materials of construction, their properties, manufacture, etc.

13. *Measurement of Power and Engineering Laboratory*. The various methods for determining the amount of power as shown by dynamometers is studied and illustrated by laboratory tests. In the engineering laboratory, dynamometer tests of power will be made by transmission and absorption dynamometers. Engine and boiler tests will also be conducted.

14. *Advanced Machine Design*. A text-book covering a large range of engineering details will be studied in connection with advanced drawing-board work.

15. *Mechanics of Engineering*. A text in applied mechanics, consisting largely of practical problems, is intended to fix the use of theoretical mechanics in the mind of the student.

16. *Engineering of Power Plants*. A study is made of the design of engines, boilers, chimneys, and the various details of modern power plants.

17. *Original Design*. The student is required to design a machine or structure, either of his own suggestion or to fulfil the requirements of a specification. The work should be in connection with the thesis.

Courses 1, 2, 3 and 4 must be taken in the order named. Engi-

neering students to graduate must have twelve terms of shop work to their credit and at least one term of each of the four courses named.

Means of Illustration. Carpenter shop, with 220 separate kits of tools, and benches for 45 students in each class; lathes, planer, circular saws, friezer, mortising machine, grinder, and tool room containing all kinds of woodworking tools for general use. Shops for iron-work contain 16 blacksmith forges; brass foundry, with 12 benches and 50-pound furnace; iron foundry, with two-ton cupola and good assortment of flasks; machine-shop, equipped for 30 students, with hand tools, six 14-inch engine-lathes, one speed lathe, planer, shaper, No. 2 Brown & Sharpe universal milling machine, Walker universal grinder, drills, bolt cutter, and tool room of fine tools. The heating and power plant attached form a part of the illustrative apparatus, containing five boilers, pumps, one 50-horse-power Ball & Wood engine, one 10-horse-power Atlas engine, 40-horse-power Belknap generator, and other illustrative apparatus. Wood shop is run by a 12-horse-power motor; iron shop, by an 8-horse-power.

For opportunities for apprentices, see page 41.

Military Training.

1. *Theoretical.* Students of the first year have one lesson each week of the winter term in drill regulations. A course in military science, supplemented by lectures, is given once a week during the second year. This is designed to show how an army is organized, equipped, and supplied; to explain some of the minor operations of war; to show the organization of the militia under the militia law of this state; to explain the laws of war, and the civil functions and relations of the military, etc. Instruction is afforded to such as desire it in other military subjects.

2. *Practical.* All young men below the third year in the regular course are assigned to drill, unless excused. Drills are required five times a week in fall and spring terms, and four times a week in the winter term. Special attention is given to "setting up," or physical development. The practical course in infantry embraces small-arms target practice, and, as far as possible, all the movements prescribed by the "Drill Regulations of the United States Army" that are applicable to a battalion. Instruction in artillery includes, as far as practicable, such portions of the United States drill regulations as pertain to the formation of detachments, manual of the piece, mechanical maneuvers, and firing blank cartridges.

The College battalion is divided into companies, which are officered by students appointed each term by the professor in charge, with the approval of the President. Arms and accouterments are furnished by

the United States government. Uniforms for drill are furnished by the College. By order of the secretary of war, the names of the three most proficient fourth-year students are reported to the adjutant-general of the army and the adjutant-general of the state.

Means of Illustration. Armory, containing 225 stands of arms (breech-loading cadet rifles, caliber .45), with accouterments; two three-inch rifled guns; also swords, uniforms, etc.

Music.

1. *Vocal Music.* Instruction is furnished free of charge, under the direction of the Faculty. Classes meet on Thursday and Friday for advanced pupils, and for beginners on Tuesday and Wednesday. This study is taken up at the choice of the student, but regular attendance is required as at the other classes. The advanced class shares in the music of public exercises during commencement week.

2. *Instrumental Music.* Instruction upon the piano, organ, mandolin, guitar, and the more important orchestral and band instruments, is given free to students in the regular courses, under the following restrictions: It may be taken as an industrial by ladies only, in connection with their vocal music, after the required industrials of the first year, and after passing an examination equivalent to one term in vocal music, in which case one hour's daily practice at the College is required. It may be assigned as an extra to students, ladies or gentlemen, who do well in their general course of study, on the same conditions as above, excepting as to practice, for which students may furnish their own instruments at home.

Class organization shall be wholly under control of the professor in charge. Students in the music department shall be subject to the call of the professor for music connected with College exercises.

Students who are sufficiently advanced to join the College orchestra, or the mandolin, guitar and banjo club, or the College elementary band, or the College cadet band, which practices in connection with military drill, may become members by assignment.

Oratory.

The aim of this course is to develop the powers of the student's mind, that he may be able to think clearly for himself and to express his thoughts effectively in written or oral form. Practical work will be done according to natural and scientific methods. Occasional short talks or informal lectures will be given on topics relating to this department.

1. *Physical Culture.* Three terms are given in the general course, and two terms each in the agricultural and engineering courses. The

system of physical culture consists entirely of movements without apparatus, designed to give health, freedom, strength and grace to the body, in order that it may act quickly and truly in obedience to the highest thoughts, feelings and purposes of the soul. During the entire course daily drill will be given in the classroom on the exercises. The course is thoroughly practical, and will be of benefit to persons in any walk of life.

2. *Voice Culture.* Three terms in the general course, and two terms each in the agricultural and engineering courses. The voice work is designed to fit the voice to fulfil its highest function, namely, to be a willing servant of the soul, and consists of daily practice on exercises for freedom, flexibility, volume and harmony of voice.

3. *Rendering.* The work in rendering is based upon the natural order of unfoldment in the activities of the human mind, and is in accord with the latest approved pedagogical principles, the aim being to cultivate original thought and to produce that condition of mind and heart which shall result in personal power and character. This is done by bringing the pupil into vital relationship with the masterpieces of the greatest minds, and causing the pupils to reproduce in others the same mental states in which those great minds were when they wrote or spoke. The method is free from mechanical dictation, working always from within outward. The results are obtained entirely by means of arousing the activities of the pupil's mind through concentration upon proper objects of thought. Daily drill in rendering from the platform selections from standard authors, together with criticism and suggestions for practice, will be given throughout the course. The theory and philosophy of different phases of the work will be set forth as far as may be practicable in the time.

4. *Vocal Physiology and Visible Speech.* One hour per week during the second and third terms' work in the general course. In this course the science of articulate speech is presented, so as to give the pupil a knowledge of the laws of speech as applied to the English language, and also to give the exact scientific pronunciation of all the elements of speech. The aim is to furnish correct ideals of the elementary sounds and their combinations; to polish the speech; to improve the pronunciation; to cultivate the voice; and to teach the right use of the dictionary.

5. *Public Speaking.* Each third-year student in the general course is required to appear in public in chapel twice during the year, once in a declamation, and once in an original part. Each fourth-year student in the general course is required to appear in chapel once during the year in an original part. For the chapel work,

the students are prepared by private rehearsals with the professor in charge of the department.

6. *Graduating Theses.* During the spring term, each student who is to graduate is required to write an original thesis of not less than fifteen hundred words, under the direction of the professor in charge of the department in which the subject of the thesis belongs and the professor of oratory.

Physics.

1. *Elementary Physics.* First year, one term; all courses. This term's work is intended to give the students a general view of the subject, with such laws and principles as will be useful to them in scientific studies. Apparatus will be used and scientific investigation encouraged.

2. *Advanced Physics—Engineering Course.* Spring term, third year, three hours per week. Subjects: Sound and heat. Fall term, fourth year, five hours per week. Subjects: Light and electricity. A text-book will be used, supplemented by lectures and experiments. Meteorological subjects will be treated in connection with related subjects in physics.

3. *Advanced Physics—Agricultural and General Courses.* Fall term, fourth year, five hours per week. Subjects: General properties of matter, mechanics, sound, and heat.

4. *Light and Electricity.* Winter term, fourth year, five hours per week. Text-book study, recitations, lectures and experiments will be used as deemed best. Meteorology will be taught in connection with related subjects. In the agricultural course, special prominence will be given to soil moisture and related topics.

In all courses, special lines of reading will be encouraged, and investigation and experimentation so far as the equipment of the department will permit.

EXTENDED COURSE. Advanced work in physics is offered during each term. It must be preceded by the physics of the required course.

Means of Illustration. Complete physical apparatus, for general instruction in physics, and meteorological instruments, including a self-recording anemometer. Among the apparatus for special work may be mentioned, Coulomb's torsion balance, Kohlrausch differential galvanometer with reading telescope, Deprez-Carpenter ammeter, Ayrton and Perry's voltmeter, Thompson's potential and current galvanometers, Carhart-Clark standard cell, standard legal ohm,

Wheatstone's meter bridge, dynamos. The distribution of power by electricity is illustrated at the College by a forty-horse-power generator and four motors, of 5, 8, 10 and 12 horse-power.

Psychology and Logic.

Psychology and Logic. Spring term, fourth year. The object of this course is to afford a clear understanding of the nature and operation of the mind. The laws of mental action, the general principles of intellectual and moral philosophy, the origin and development of thought, feeling, conscience, and will, the phenomena of sensation, emotion, perception, attention, discrimination, association, memory, imagination, reason, volition, reflex action, habit, instinct, illusion, hallucination, hypnotism, thought transference, etc., are subjects of investigation and explanation. The latest results of modern experimental psychology are made available, and a psychologic laboratory has been started, in order to afford superior opportunities for original investigation. Problems requiring careful introspection and observation are given the students from time to time, and the studies are reported and discussed in class one day in each week with most interesting results.

The problems are such as the following: What is the meaning of averted eyes? The psychology of expression; how to read the character in the face; the imprint of thought and emotion in the features. What is the test of truth? The psychology of bad manners. The conditions of strong and lasting friendship. The nature of humor and the psychology of laughter. What is genius? How can we best discover our aptitudes and abilities, determine what work we are fitted to do, and make the most of ourselves and our opportunities? The philosophy of life, and the formation of an ideal.

Special attention is given to the art of reasoning — inductive, deductive, and by analogy or direct comparison. The methods by which truth is discovered and science built up are carefully studied, and the chief varieties of fallacies particularly noted. The students discover and classify specimens of fallacious reasoning, making collections of illogic for guidance and warning. True methods of observation, experiment, introspection, analysis, classification, generalization and inference are taught; and an earnest effort is made to inculcate open-mindedness, tolerance, sympathy, respectful consideration of the opinions of others, careful investigation of every aspect of the questions that arise for consideration, and suspensions of judgment until the facts are thoroughly mastered and a hypothesis found that substantially fits them all.

James's Briefer Course is used as a basis for psychologic study.

Special use is also made of Mills's Logic. Lectures, reference reading, laboratory work, original researches and analyses, experiments, discussions and theses complete the means of study in this department.

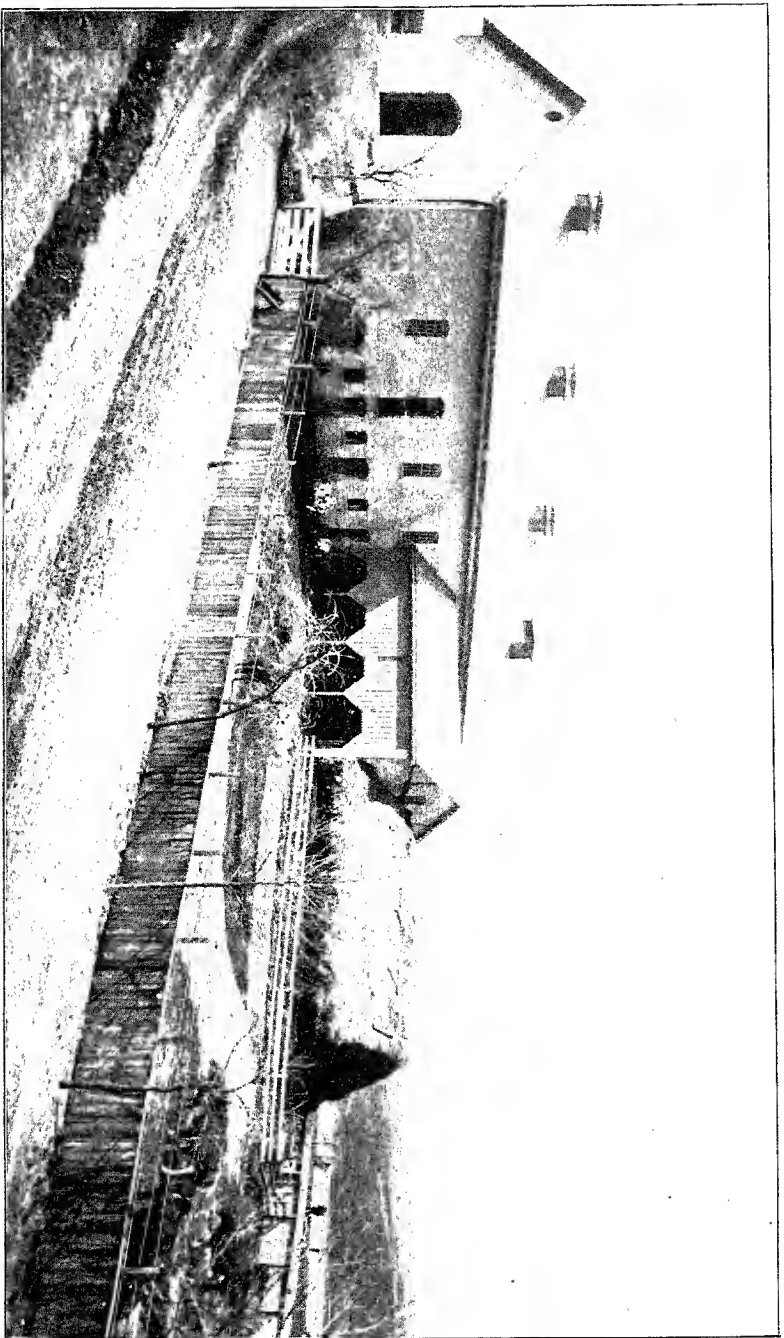
Printing.

Practice Work. Fully occupying as it does double its former amount of floor space, possessing an amply-lighted composing room, and with augmented equipment, including much new type, the printing department affords better facilities than heretofore to the individual student for progress in all that tends to develop the first-class workman. As the printing industrial is open to both sexes, the classes are usually quite large and the stimulus of good example is not lacking; nevertheless, the instruction is of that character in which individual advancement is always taken into account, and opportunity is extended for individual growth in the knowledge of those principles which are of practical utility in the every-day work of a printing-office. Occasion for the gaining of experience and acquirement of skill is supplied by the publication of the weekly *Students' Herald*, the issuing of the monthly *Industrialist*, the execution of the wide range of job printing needed to furnish the various College departments with blanks, quiz and topic lists, lesson outlines and stationery, and the College societies with programs, notices, etc.; and in varied operations necessary to do all this economically and expeditiously.

The lessons embraced may be briefly summarized under these suggestive topics: The elements of news, book and job composition and imposition; proof-reading and correcting; plain and color presswork; adaptation of various grades of inks and papers; newspaper and magazine folding; wrapping and mailing; tableting of stationery; pamphlet stitching and stapling; and the systematic reading and classification of exchanges. Instruction in the more common technical terms and phrases, names of typographical tools and their uses, preparation of copy, spelling, capitalization, syllabication and punctuation is largely incidental, and in that way receives all the more emphasis, for accuracy in these matters is recognized as of great value in every walk of life.

Means of Illustration. Printing-office, with thirty pairs of cases; large fonts of six-point, eight-point and ten-point Roman type and italics; a good assortment of wood and metal job type and brass rule; a Babcock cylinder press and a New Liberty quarto-medium job press, run by electric motor; a Gordon eighth-medium job press; mitering, rule-curving and stapling machines; paper-cutter, cabinets, stands, imposing stones, etc.

For opportunities for apprentices, see page 41



BARN AND SHEDS.

Veterinary Science and Biology.

1. *Hygiene of Farm Animals.* Fall term, second year. As the name indicates, this includes a study of the laws of health relating to farm animals, and incidentally also the laws of health relating to the farm home. These two subjects bear an intimate relation to each other. Among the subjects discussed may be mentioned the following, viz.: The laws of health and disease; care of the various organs of the body; influence of climate, soil, and water; impurities and diseases of foodstuffs; animal parasites and their life-histories; injurious insects; breeding; quarantining; disinfection, etc. All these subjects are discussed purely as they have a practical bearing on the health of man and beast. This course consists of lectures and reference reading.

2. *Anatomy and Physiology.* Spring term, second year. For students in the agricultural and general courses. The structure of the body, including the form and uses of the skeleton and the muscles. The form, size and position of the various internal organs are first considered. Following this the various functions of these organs, such as digestion and growth of tissue, circulation of blood and lymph, respiration, secretion and excretion, the nervous system, and the special senses. This subject is taught with its practical application to the laws of health constantly in view. A few dissections of cadavers of dogs and cats are made before the class, and when practicable students will be permitted to assist in this work. This course must precede biology, comparative anatomy, agricultural bacteriology, and veterinary science. Recitations are from Martin's Human Body, with lectures and illustrations.

3. *Biology.* Winter term, third year. This includes in a very general way the study of the science of life, protoplasm, the cell theory, etc. Following this a study of the animal kingdom, its classification, the origin and distribution of animals, etc. This subject will be made as practical as possible, and every student will be obliged personally to dissect a number of the lower animals, make drawings of the parts, and thus become familiar with the structure of the beings whose interesting physiology he studies. One of the valuable features of this study is the attending development of the powers of observation in a manner that is impossible by any other means. Lectures, recitations, and laboratory work. This study must precede agricultural bacteriology and veterinary science.

4. *Agricultural Bacteriology.* Fall term, fourth year. This is bacteriology as applied to practical farm problems. Special attention is given to the germ life that is active in the dairy and creamery, its relation to the character of the product turned out, the flavor and

keeping qualities of milk, butter, and cheese, diseases of these products, etc. Bacteria, as nitrifiers in the soil, as agents of fertility, and as causes of disease, are studied. Students will learn to stain and mount disease germs, examine them under high-power microscopes, to isolate species and cultivate them in artificial food media, and the endless variety of other interesting work connected with the study of general bacteriology. Must precede veterinary science. Lectures and laboratory work.

5. *Comparative Anatomy*. Fall and winter terms, fourth year. This includes a study of the anatomy of the horse, with references to similarities and differences in the other domestic animals. It must precede the study of veterinary science. Lectures and illustrations.

6. *Veterinary Science*. Spring term, fourth year. The aim of this course is by no means to make veterinary surgeons. This it is absolutely impossible to do in so short a time. But with the studies in biology, farm hygiene, agricultural bacteriology and comparative anatomy preceding a course of lectures on *veterinary science*, it is intended to make a young man thoroughly familiar with the ordinary causes of disease and with the latest successful methods of avoiding and combating them. A few common infectious diseases of farm animals are discussed in detail. The study of lameness of the horse, selection of horses for given purposes, etc., will constitute part of the term's work. Most diseases of farm animals can be prevented by intelligent foresight. It is our aim to train young men to exercise this foresight. Lectures and recitations.

7. *Histology*. Arrangements will be made to give instruction in the technique of the microscope and in histology to a class consisting of a limited number of students. This class will be open only to such students as do exceptionally satisfactory work in other branches of natural science.

Means of Illustration. The zoölogical museum, containing numerous representatives of the several classes, especially full in the fishes and mollusks of Kansas, and in illustrations in economic and systematic entomology. Increasing material in skins, alcoholic and anatomical preparations are available also for the use of the student. For veterinary work there is provided a laboratory fitted with apparatus, instruments and reagents for the study and treatment of disease. An Azoux model of a horse, which is dissectible, showing nearly 1,000 anatomical structures, skeletons, charts, and a large collection of anatomical specimens, showing healthy and diseased structures.

General Information.

EXAMINATIONS.

Examinations for admission are held at the beginning of each term, as laid down in the calendar of the College year. Applicants entering at any other time during the term have special examinations. These examinations are chiefly written, and a standard of seventy per cent. is required to pass any study.

Examinations in the course are held as arranged by the Faculty. The results of these examinations are marked on a scale of 100, and combined with the average of the preceding daily exercise upon the same scale into a grade for report to the Secretary.

Averages of grades in the register are made by giving the final term grade a value of two-thirds, and previous grades a value of one-third. After each term examination during the first year of attendance, a report of advancement is made to parents; and any student upon leaving College at the close of a term, may receive a certificate of standing.

The final grade and the term average must be at least seventy for passing any study; and any student who fails to pass in two studies of the course may either drop back a year or withdraw from College.

After completing the studies of the first year, students are allowed special examinations only upon recommendation of the professor in charge, and by permission of the Faculty. Permission for examination in studies not pursued with a class must be obtained at least two months before the examination is held. All such examinations are held under the immediate supervision of the professor in charge, and are thorough and exhaustive.

Candidates for graduation must make good all deficiencies before entering upon the work of the spring term of the fourth year.

Students are not catalogued in the third-year class unless deficiencies of previous years are provided for.

Students deficient in entrance studies must make good such deficiencies before entering upon the work of the second year.

TERMS OF ADMISSION.

Applicants for admission at the beginning of the College year must be at least fourteen years of age, and able to pass a satisfactory examination in reading, spelling, writing, arithmetic, geography,

English grammar, and United States history. Specimen questions will be furnished on application. Those applying later in the year must show sufficient advancement to enter the classes already in progress.

Entrance can be made at any time; but after a term has commenced it is sometimes difficult to find suitable classes for a new student, and the farther advanced the term, the greater is this difficulty. It is best, therefore, that entrance should be made on the first day of a new term.

The following diplomas and certificates will be received in lieu of entrance examinations :

1st. Diplomas received on the completion of a county course of study which has been approved by the Faculty, when properly signed by the county superintendent.

2d. Certificates of passing the grammar grade in any city school with a course of study approved by the Faculty, when properly signed by the city superintendent.

Certificates of passing the ninth grade in the Manhattan city schools will be taken as sufficient for admission only at the beginning of the fall term.

3d. Kansas teachers' certificates issued by the county board of examiners, showing that the above-named studies have been passed with a grade of at least seventy per cent.

Counties and cities on the accredited list may be called upon at any time to furnish evidence that they are maintaining a satisfactory standard of scholarship.

The Faculty have approved the courses of study adopted by the following cities and counties; others may be submitted for approval at any time:

CITIES.

Abilene,	Coffeyville,	Hiawatha,	Lyons,	Pratt,
Alma,	Columbus,	Holton,	Manhattan,	Russell,
Anthony,	Concordia,	Horton,	Mankato,	Salina,
Argentine,	Council Grove,	Humboldt,	Marion,	Scranton,
Arkansas City,	Dexter,	Hutchinson,	McPherson,	Sedan,
Atchison,	Dodge City,	Independence,	Minneapolis,	Seneca,
Augusta,	El Dorado,	Iola,	Neodesha,	Solomon City,
Baldwin,	Ellsworth,	Junction City,	Newton,	St. Mary's,
Belleville,	Emporia,	Kanopolis,	Olathe,	Topeka,
Beloit,	Eureka,	Kansas City,	Osage City,	Valley Falls,
Burlingame,	Fort Scott,	Kingman,	Osborne,	Wamego,
Burlington,	Fredonia,	La Cygne,	Oswego,	Washington,
Caldwell,	Garden City,	Larned,	Ottawa,	Waverly,
Chanute,	Garnett,	Lawrence,	Paola,	Wellington,
Cherryvale,	Gaylord,	Leavenworth,	Parsons,	Wellsville,
Chetopa,	Girard,	Lebo,	Pittsburg,	Winfield,
Clay Center,	Great Bend,	Lincoln,	Pomona,	Wichita.
Clifton,				

COUNTIES.

Allen,	Douglas,	Kingman,	Nemaha,	Rush,
Anderson,	Elk,	Labette,	Neosho,	Russell,
Barber,	Ellis,	Leavenworth,	Ness,	Saline,
Brown,	Ford,	Lincoln,	Osage,	Sedgwick,
Bourbon,	Franklin,	Linn,	Osborne,	Shawnee,
Butler,	Geary,	Lyon,	Ottawa,	Smith,
Chase,	Greenwood,	Marshall,	Phillips,	Sumner,
Cherokee,	Harper,	Marion,	Pottawatomie,	Wabaunsee,
Clay,	Harvey,	McPherson,	Republic,	Washington,
Cloud,	Jackson,	Miami,	Reno,	Wichita,
Cowley,	Jefferson,	Mitchell,	Rice,	Wilson,
Dickinson,	Jewell,	Montgomery,	Riley,	Woodson,
Doniphan,	Johnson,	Morris,	Rooks,	Wyandotte.

COUNTY HIGH SCHOOLS.

Atchison,
Dickinson.

Diplomas of graduation from these two county high schools will give the student second-year standing, except in certain work distinctive of this institution.

Preparatory classes in arithmetic, grammar, geography and United States history are provided for those over eighteen years of age who have not been able to make their preparation in the common schools. Those expecting to enter these classes take the same entrance examinations as indicated above, and are then assigned to classes in those studies in which they prove deficient.

Applicants for advanced standing in the course must pass examination in all the previous studies of the class to be entered; but, if they have pursued such studies in other institutions of similar rank, they may receive credit for their standing in those institutions, upon presenting a certificate from the proper officer, showing that their course has been equivalent to that given here.

A mature student may be permitted to deviate from the regular course of study.

HOSPITANTS.

That mature persons not able to attend College continuously may nevertheless be able to enjoy, in a measure, the privileges of the institution, an invitation has been extended to all citizens of Kansas who may be so disposed to visit the College, its lectures, laboratories, library, shops, and various departments, and to avail themselves as fully of its advantages as may be consistent with their wishes, with the needs and duties of the regular students, and with the harmonious and successful working of the institution. Following are certain rules concerning hospitants:

Persons regularly attending any of the classes of Kansas State Agricultural College, without assuming the regular duties of students, will be known as hospitants, and —

1. Must be persons of mature age, whose attendance on regular College duties is obviously impracticable.

2. Must be properly enrolled at the President's office.
3. May attend any of the regular classes of the institution, subject to the same regulations, with regard to punctuality and attendance, as are imposed upon regular students, except as to recitations and examinations.
4. May use the library as regular students.
5. Are not entitled to laboratory privileges without special recommendation of the professor in charge and the permission of the Faculty.

GENERAL DUTIES AND PRIVILEGES.

General good conduct, such as becomes men and women anywhere, is expected of all. Every student is encouraged in the formation of sound character, by both precept and example, and expected, "upon honor," to maintain a good repute. Failure to do so is met with prompt dismissal. No other rules of personal conduct are announced.

Classes are in session every week-day except Mondays, and no student may be absent without excuse.

Students enrolled in any term cannot honorably leave the College before the close of the term, unless excused beforehand. A full and permanent record of attendance and scholarship shows to each student his standing in the College.

Chapel exercises occupy fifteen minutes before the meeting of classes each morning, and absence from them is noted. On Sunday no services are held in the chapel, but students are advised to attend the different churches of the city.

Every Saturday, at 1:30 P. M., the whole body of students gathers for a public lecture, or for rhetorical exercises of the third- and fourth-year classes.

On certain Saturday afternoons in the fall term, lectures on economics, sociology and the duties of citizens are delivered in the College chapel, to the entire student body. In the winter term, chapel lectures on agriculture, horticulture and related subjects are similarly delivered to all. Attendance upon all these lectures is required. Students take notes, and are tested upon their knowledge of the subject-matter.

Systematic training in gymnastic and calisthenic exercises is provided for both young men and young women, under teachers appointed by the College.

There are four prosperous literary societies, which meet weekly, in rooms set apart for their use. The Alpha Beta, open to both sexes, and the Ionian, for young women, meet Friday afternoon. The Webster and the Hamilton admit to membership young men only, and meet on Saturday evening.

The students' Farmers' Club meets weekly to discuss farm questions, and furnishes a valuable part of the education offered.

The Young Men's and the Young Women's Christian Associations hold weekly meetings. They appoint reception committees to meet new students at the trains, to assist them in finding suitable boarding places, and to aid them in various ways. The two associations publish, for free distribution, a handbook containing a map of the town, information concerning the College, and other matters of interest to students.

Once in each term the College Hall is opened for a social gathering of Faculty and students, in which music, literary exercises and friendly greeting find place.

LABOR AND EARNINGS.

Every encouragement is given to habits of daily manual labor during the College course. Only one hour daily practice in the industrial departments is required; but students are encouraged to make use of other opportunities for adding to their ability and means.

All labor at the College is under the direction of the superintendents of the departments, and offers opportunities for increasing skill and efficiency. In regular daily statements, the students are required to observe business forms and principles, showing when and where the work was performed.

The shops and offices are opened afternoons and Mondays for the accommodation of skilled students in work for their own advantage. Everywhere the student who works wins respect; and it is a matter of pride to earn one's way as far as possible.

The labor of the students in the industrial departments is a part of their education, and is not paid for. Other student labor, however, is employed upon the farm, in the gardens, shops, and printing-office, and about the buildings. Such labor is usually paid for at rates varying with services rendered, from eight to ten cents an hour. The superintendents strive to adjust their work to the necessities of students and give them the preference in all tasks suitable for their employment. So far as practicable, the work of the shops and offices is turned to account for their benefit; and the increasing extent of the grounds and sample gardens brings more of such labor. The monthly pay-roll for the past year averages about \$400.

Many students obtain work in the city or upon neighboring farms, and so pay part of their expenses. In these ways some students are able to earn their way through College. The amount so earned will vary according to the tact and zeal of the student. The majority must expect to provide for earnings outside of term time, or from other sources, for the larger part of their expenses. The long summer vaca-

tion of three months offers opportunity for farm or other remunerative labor; and no one need despair of gaining an education if he has the ability to use his opportunities well.

EXPENSES.

Tuition is free to all, irrespective of residence in Kansas; and no fee for incidental or contingent expenses is charged.

The cost of text-books at the book-stores has been, for the first year, about \$9; for the second year, about \$10; for the third year, about \$13; and for the fourth year, about \$15. In future the College will maintain a book-store, at which students may obtain their books and supplies at cost, the prices, therefore, being less than the retail prices mentioned below.

The expense for apparatus and tools to each student during the course is as follows: Drawing, \$4.05; microscope for botany and entomology, \$1.50; case, pins, etc., for entomology, \$2.25; herbarium, \$1.50. The total expense for these articles during the four years is less than \$10.

Full board and washing are not furnished by the College. Board, with furnished room, can be procured in private families at from \$2.50 to \$3.50 per week, or table board in student clubs from \$1.50 to \$2.25 per week. Some students board themselves at even less cost; and rooms for the purpose can be obtained at a rent of from \$1 to \$3.50 a month. Washing costs from fifty cents to \$1 a dozen pieces.

Within the past year the College has established a students' and professors' dining-hall, in which midday lunches may be obtained throughout the year at cost; the price being ten cents per meal, or less. This hall is largely patronized.

Ordinary expenditures, aside from clothing and traveling expenses, range from \$100 to \$200 a year. No institution in the state furnishes an education at less cost to the student.

NAMES AND PRICES OF TEXT-BOOKS.

FIRST YEAR.

Wells's Higher Algebra, edition of 1895, \$1.35.

Bergen's Elements of Botany, \$1.25.

Hitchcock's Key to Genera of Manhattan Plants, 50 cents.

Walters's Free-hand Drawing, 25 cents.

Sickles's Exercises in Woodworking, \$1.

Swinton's Word Analysis, 40 cents.

Low's English Language, 65 cents.

Pierce's College Manual of Bookkeeping, \$1.

Walters's Elementary Graphics, book I, 75 cents.

Emerson's Evolution of Expression, volume I, 50 cents.

United States Infantry Drill Regulations, 30 cents.
Voorhees's First Principles of Agriculture, 90 cents.
Hotze's Elementary Physics, 55 cents.
Genung's Outlines of Rhetoric, \$1.10.

SECOND YEAR.

Wentworth's New Plane and Solid Geometry, \$1.35.
Remsen's Introduction to the Study of Chemistry, \$1.35.
Newcomer's English Composition, 80 cents.
Roberts's Fertility of the Land, \$1.
King's The Soil, 90 cents.
Pettit's Elements of Military Science, \$1.
Campbell's Household Economics, \$1.50.
Lincoln's Boston School Kitchen Text-book, \$1.
Martin's Human Body, \$1.40.
Wentworth's Analytical Geometry, \$1.25.
Myers's General History, \$1.65.
Walters's Elementary Graphics, book II, 75 cents.
Remsen's Organic Chemistry, \$1.30.
Wing's Milk and its Products, \$1.
W. A. Noyes's Qualitative Analysis, 85 cents.
Wentworth's New Plane and Spherical Trigonometry and Surveying, \$1.35.
Emerson's Evolution of Expression, volume II, 50 cents.
Kidder's Outline of "Bell's Visible Speech," \$1.
United States History.
Smith's Economic Entomology, \$2.25.

THIRD YEAR.

Orton's Zoölogy, \$1.80.
Dana's Elementary Mechanics, \$1.50.
Fiske's Civil Government, \$1.
Henry's Feeds and Feeding, \$2.
Emerson's Evolution of Expression, volume III, 50 cents.
Jamieson's Applied Mechanics, \$1.25.
Bonney's Story of Our Planet, \$3.50.
Merriman's Hydraulics, \$4.
Robinson's Principles of Mechanism, \$4.
Genung's Practical Rhetoric, \$1.25.
Walters's Free-hand Drawing, book IV, 20 cents.
Miles's Stock-Breeding, \$1.25.

FOURTH YEAR.

Barker's Physics, \$3.50.
Pancoast's English Literature, \$1.50.
Wright's Industrial Revolution of the United States, \$1.

Merriman's Mechanics of Materials, \$4.
 Flather's Measurement of Power, \$2.
 Ely's Socialism and Social Reform, \$1.50.
 Hitchcock's Woody Plants of Manhattan, 30 cents.
 Bevis and Low's Machine Design, \$2.50.
 Perry's Applied Mechanics, \$2.50.
 Emerson's Evolution of Expression, volume IV, 50 cents.
 James's Psychology, \$1.60.
 Hodgkin's Literature Leaflets, 30 cents.
 Hutton's Engineering of Power Plants, \$4.
 Walker's International Bimetallism, \$1.
 Hough's Forestry, \$1.25.

MUSIC AND INDUSTRIALS.

Music.

Instrumental music, standard text-books and studies, from \$1 to \$3 per term.
 Vocal music, from 60 cents to \$2 per term.

Carpenter Shop.

Sickles's Exercises in Woodworking (for first term in shop work), \$1.

Printing.

Wilson's Treatise on Punctuation, \$1.50.

BUSINESS DIRECTIONS.

General information concerning the College and its work, studies, examinations, grades, boarding places, etc., may be obtained from the President or the Secretary.

Questions, scientific or practical, concerning the different departments of study or work, may be addressed to the several professors and superintendents.

Loans upon school-district bonds are to be obtained from the Loan Commissioner.

Bills against the College should be presented monthly, and, when audited, are paid from the office of the Treasurer.

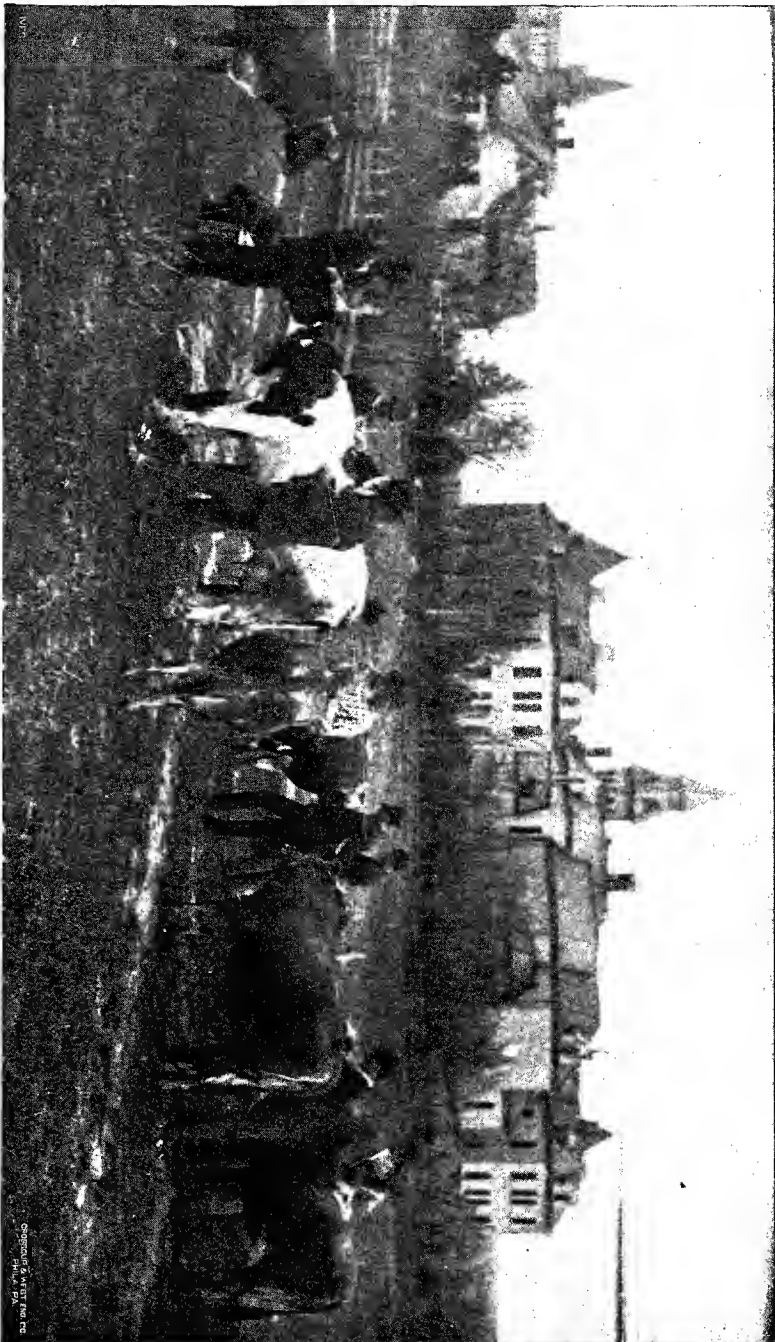
All payments of principal and interest on account of bonds or land contracts must be made to the state treasurer, at Topeka. Applications for extension of time on land contracts should be sent to the Secretary of the Board of Regents, at Manhattan.

The *Industrialist* may be addressed through Pres. Thos. E. Will, managing editor. Subscriptions are received by Supt. Chas. S. Davis.

Donations for the library should be sent to the Librarian; donations for the museum, to the chairman of the Committee on Museums.

Applications for farmers' institutes should be addressed, as early in the season as possible, to the President or Secretary.

The Experiment Station should be addressed through the Secretary of the Station.



STUDENTS JUDGING THE DAIRY CATTLE.

Graduates.

This list is made from the best data obtainable. A favor will be conferred by notifying the College Secretary of any errors or changes.

1867.

Henry L. Denison, A. M., Denver, Colo. United States court reporter.
 Belle M. (Haines) Pond, A. M., Topeka, Kan. Housewife.
 Emma L. (Haines) Bowen, A. M., Manhattan, Kan. Housewife.
 John J. Points, A. M., Omaha, Neb. Lawyer.
 Martha A. (White) Abbott, A. M., Chicago, Ill. Housewife.

1871.

Emily M. (Campbell) Robinson, A. B. Died in 1877.
 Ella F. (Denison) Whedon, A. B., Lincoln, Neb. Housewife.
 Luella M. Houston, A. B., Concordia, Kan. Milliner and dressmaker.
 Charles O. Whedon, B. S., Lincoln, Neb. Lawyer.
 Kate E. (White) Turley, A. B., Chicago, Ill. Housewife.

1872.

Theophania M. (Haines) Huntington, A. B. Died in 1880.
 Albert Todd, A. M., St. Augustine, Fla. Lieutenant First U. S. artillery.
 S. Wendell Williston, A. M., M. D., Lawrence, Kan. Professor of paleontology, State University.

1873.

Eliza Z. (Davis) Stringfield, A. B., Pomona, Cal. Housewife
 Sam Kimble, A. B., Manhattan, Kan. Lawyer.

1874.

Harry A. Brous, A. M., M. D., Philadelphia, Pa. Physician.
 Edgar F. Clark, A. B., New Whatcom, Wash. Lawyer.
 John E. Davis, B. S., D. D. S., Oakland, Cal. Dentist.
 William D. Gilbert, A. B., Atchison, Kan. Lawyer.
 A. Judson White, A. B., Manhattan, Kan. Minister.

1875.

Reuben E. Lofnck, B. S., Manhattan, Kan. Merchant.
 Alice E. (Stewart) Points, A. M., Matawan, N. J. Teacher.

1876.

George A. Gale, A. B., Mangona, Fla. Merchant.
 Ella M. (Gale) Kedzie, A. B., Lansing, Mich. Teacher of art.
 Nellie (Sawyer) Kedzie, M. S., Peoria, Ill. Professor of household economy and hygiene, Bradley Polytechnic Institute.
 Carrie M. Kimball, A. B., Garden Grove, Cal. Art instructor.
 Minerva E. (Whitman) Heiser, A. B., Lyndon, Kan. Housewife.

1877.

Ella S. Child, B. S., Manhattan, Kan. Dressmaker.
 George H. Failyer, M. S., Manhattan, Kan. Book dealer.
 John S. Griffing, M. S., Topeka, Kan. Merchant.
 Walter C. Howard, B. S., Truckee, Cal. Minister.
 Frederick O. Hoyt, B. S. Died in 1884.
 Louis E. Humphrey, B. S., Chapman, Kan. Druggist.
 James F. La Tonrette, B. S., Idaho Springs, Colo. Miner.
 Marion F. Leasure, B. S., LL. B., La Cygne, Kan. Lawyer.
 William Ulrich, M. S., Manhattan, Kan. Contractor and builder.

1878.

Albert N. Godfrey, M. S., ———, Wash. Farmer and fruit-grower.
 Charles S. McConnell, B. S., Kansas City, Mo. Printer.
 Geo. S. Platt, B. S. Died in 1878.
 Amos E. Wilson, B. S., Leavenworth, Kan. Banker.

1879.

Arthur T. Blain, B. S., Lacanada, Cal. Nurseryman.
 Etta (Campbell) Blain, B. S., Lacanada, Cal. Housewife.
 Wilmer K. Eckman, B. S., Logansport, La. Lumber dealer.
 Corvin J. Reed, B. S., St. Clere, Kan. Farmer.
 Harry C. Rushmore, B. S., Kansas City. Merchant.
 Wm. H. Sikes, B. S., Leonardville, Kan. Merchant and grain dealer.
 Lewis A. Salter, B. S., Alva, O. T. Lawyer.
 Ella (Vincent) McCormick, B. S., Clay Center, Kan. Bookkeeper.
 Clarence E. Wood, B. S., A. B., Erwin, O. T. Farmer.

1880.

Augustine Beacham, B. S., Seattle, Wash. Principal of schools.
 Lizzie R. (Cox) Kregar, B. S., Milford, Kan. Housewife.
 Emma (Hoyt) Turner, B. S., Cloquet, Wis. Housewife.
 Emma (Knostrman) Huse, B. S., Arkansas City, Kan. Housewife.
 Grace (Parker) Perry, B. S., Pocatello, Idaho. Housewife.
 Noble A. Richardson, B. S., San Bernardino, Cal. Principal of high school.
 Maria E. (Sickels) Davis, B. S., Chicago, Ill. Housewife.

1881.

Flora (Donaldson) Reed, B. S., St. Clere, Kan. Housewife.
 Ulysses G. Houston, B. S., Concordia, Kan. Lecturer.
 Fletcher M. Jeffrey, B. S., Cripple Creek, Colo. Lawyer.
 William J. Jeffrey, B. S., Boston, Mass. Law student, Boston University.
 Darwin S. Leach, B. S., ———, Africa.
 William J. Lightfoot, B. S., Cripple Creek, Colo. Deputy United States mineral surveyor.
 Dalinda (Mason) Cotey, B. S., Logan, Utah. Professor of domestic economy, Utah Agricultural College.
 Wirt S. Myers, B. S., Tampa, Fla. Furniture manufacturer.

1882.

J. Chester Allen, B. S. Died in 1885.
 Ida (Cranford) Sloan, B. S., Stillwater, Cal. Housewife.
 Edward V. Cripps, B. S., ———.
 Warren Knaus, M. S., McPherson, Kan. Editor and postmaster.
 Mattie E. (Malls) Coons, B. S., Manhattan, Kan. Housewife.
 Allie S. (Peckham) Cordry, B. S., Minneapolis, Kan. Housewife and art teacher.
 Belle (Selby) Curtice, B. S., Kansas City, Mo. Housewife.
 Burton L. Short, B. S., Kansas City, Kan. City clerk.
 John A. Sloan, B. S., Stillwater, Cal. Farmer and nurseryman.

1883.

James W. Berry, B. S., Jewell City, Kan. Farmer, contractor, and builder.
 Mary C. Bower, B. S., Manhattan, Kan. Clerk.
 Lewis W. Call, B. S., LL. M., Washington, D. C. Chief clerk, judge-advocate general's office, U. S. war department.
 Emma E. Glossop, B. S., Valparaiso, Ind. Teacher city schools.
 William J. Griffing, B. S., Manhattan, Kan. Farmer and fruit-grower.
 Phoebe E. Haines, M. S., Manhattan, Kan. Postgraduate student and student assistant, Kansas State Agricultural College.
 Hortense L. (Houston) Martin, B. S., Concordia, Kan. Housewife.
 Jacob Lund, M. S., Manhattan, Kan. Engineer, Kansas State Agricultural College.
 Katie I. (Meguire) Sheldon, B. S., Riverside, Cal. Housewife.
 J. Dana Needbarn, B. S., Lane, Kan. Merchant.
 Milan T. Ward, B. S., M. D., Orion, Ill. Physician.
 Julius T. Willard, M. S., Manhattan, Kan. Professor of applied chemistry, Kansas State Agricultural College.

1884.

Emmett S. Andress, B. S., Lakin, Kan. Farmer.
 Florence J. Brous, B. S., Kansas City, Kan. Teacher.
 Bartholomew Buchli, M. S., D. V. S., Alma, Kan. Teacher and farmer.
 John H. Calvin, B. S., LL. B., Topeka, Kan. Lawyer.
 Wm. A. Corey, B. S., Salt Lake City, Utah. Teacher and editor.
 Henry M. Cottrell, M. S., Manhattan, Kan. Professor of agriculture, Kansas State Agricultural College.
 Carrie F. (Donaldson) Brown, B. S., Portland, Ore. Housewife.
 Florence A. Donaldson, B. S. Died in August, 1888.
 Frank W. Dunn, B. S., Lawrence, Colo. Assayer.
 I. Day Gardiner, B. S., Wakefield, Kan. Farmer.
 Edwin H. Kern, B. S., Cripple Creek, Colo. Mining engineer.
 Marion M. Lewis, B. S., Portland, Ore. Minister.
 Charles L. Marlatt, M. S., Washington, D. C. First assistant in entomological division, United States department of agriculture.
 Lincoln H. Neiswender, B. S., Silver Lake, Kan. Farmer.
 Geo. C. Peck, B. S., Junction City, Kan., Printer.
 Hattie L. (Peck) Berry, B. S., Jewell City, Kan. Housewife.
 John W. Shartel, B. S., Guthrie, O. T. Lawyer.

1885.

Thomas Bassler, B. S., Batchelder, O. T. Miller.
 Albert Deitz, B. S., Kansas City, Mo. Merchant.
 George E. Hopper, M. S., Arkansas City, Kan. Superintendent of water-works.
 Florence F. Hough, B. S., Melrose, Iowa.
 Frank A. Hutto, B. S., Stillwater, O. T. Lawyer.
 J. Allen Lewis, M. S., C. E., Chicago, Ill. Civil engineer.
 Nellie J. Murphy, B. S., South Denver, Colo. Trained nurse.
 Arthur L. Noyes, B. S., Wabaunsee, Kan. Farmer.
 Clarence D. Pratt, B. S., Dallas, Tex. General agent paint company.
 Rollin R. Rees, B. S., Minneapolis, Kan. County attorney.
 Frederick J. Rogers, M. S., Ithaca, N. Y. Instructor in physics, Cornell University.
 Dorothy E. C. (Secrest) Hungerford, B. S., Randolph, Kan. Housewife.
 Grace Wonsetler, B. S., Verbeck, Kan. Teacher.
 Effie E. (Woods) Shartel, B. S., Guthrie, O. T. Housewife.

1886.

Lillie B. Bridgeman, M. S., San Diego, Cal. Teacher of science.
 Louis P. Brous, M. S., Kansas City, Kan. Teacher of drawing.
 Paul H. Fairchild, B. S., M. D., New York, N. Y. Publisher of medical journals.
 Abbott M. Green, B. S., Adin, Cal. Civil engineer and teacher.
 James G. Harbord, M. S., Fort McIntosh, Tex. Lieutenant Fifth cavalry, U. S. A.
 John U. Higinbotham, B. S., Chicago, Ill. Cashier biscuit manufacturing company.
 Maria C. (Hopper) Getty, B. S., Downs, Kan. Housewife.
 E. Ada (Little) MacEwan, B. S., Logan, Utah. Housewife.
 Frank L. Parker, B. S., Hutchinson, Kan. Merchant.
 Edward H. Perry, B. S., Perry, O. T. Editor and publisher.
 H. Augustus Platt, B. S., Guthrie, O. T. Editor.
 Ada H. (Quinby) Perry, B. S., Perry, O. T. Housewife.
 Ida H. (Quinby) Gardiner, Wakefield, Kan. Housewife.
 Minnie Reed, M. S., San Diego, Cal. Teacher of science.
 David G. Robertson, B. S., Chicago, Ill. Lawyer.
 Edward O. Sisson, B. S., Peoria, Ill. President Bradley Polytechnic Institute.
 John W. Van Deventer, B. S., Sterling, Colo. Editor and publisher.
 George W. Waters, B. S., Dillon, Colo. Teacher.
 William E. Whaley, B. S., Chicago, Ill. Instructor in history, South Side school.
 F. Henrietta (Willard) Calvin, B. S., Topeka, Kan. Housewife.
 John L. Wise, B. S., Smithboro, Ill. Merchant.

1887.

Edgar A. Allen, B. S., Albuquerque, N. M. Superintendent of Indian school.
 Fred H. Avery, B. S. Died in 1898.
 Claude M. Breese, M. S., Manhattan, Kan. County clerk.
 John B. Brown, M. S., Hoyt, Kan. Superintendent of Indian school.
 Walter J. G. Burtis, B. S., Fredonia, Kan. Farmer.

Mark A. Carleton, M. S., Washington, D. C. Assistant in division of vegetable pathology, U. S. department of agriculture.
 Nellie E. (Cottrell) Stiles, B. S., Lakeside, Cal. Housewife.
 Bert R. Elliott, B. S., Dyea, Alaska. Merchant and freighter.
 Frederick B. Elliott, B. S., Manhattan, Kan. Real-estate and insurance agent.
 Clara M. Keyes, B. S., Warner, Cal. Teacher.
 Fred. G. Kimball, B. S., Hastings, Neb. Railway postal clerk.
 Frederick A. Marlatt, B. S., Manhattan, Kan. Farm-implement manufacturer.
 William J. McLaughlin, B. S., Bern, Kan. Teacher and editor.
 Mary E. Moses, B. S., Manhattan, Kan. At home.
 Charles A. Murphy, B. S., Kingman, Kan. Superintendent of schools.
 Orlando G. Palmer, B. S., L.L. M., Perry, O. T. Superintendent of schools.
 Louis B. Parker, B. S. Died in 1889.
 James E. Payne, M. S., Cheyenne Wells, Colo. Superintendent Rainbelt Experiment Station.
 Seward N. Peck, B. S., Topeka, Kan. Cabinet-maker, railroad shops.
 George N. Thompson, B. S., Belmond, Iowa. Mechanic.
 Willis M. Wright, B. S., Jennings, La. Farmer.

1888.

Grant Arnold, B. S., Toledo, Wash. Teacher.
 Bertha H. Bacheller, M. S., Kansas City, Mo. Teacher of domestic economy.
 Clement G. Clarke, B. S., New Haven, Conn. Instructor, Yale University.
 Alexander C. Cobb, B. S., Wagoner, I. T. Farmer and carpenter.
 Mattie (Cobb) Clarke, B. S., New Haven, Conn. Housewife.
 Minnie H. Cowell, B. S., Cairo, Egypt. Hospital nurse.
 Lyman H. Dixon, B. S., Buffalo, N. Y. Architect.
 David G. Fairchild, M. S., Geneva, N. Y. Botanist, experiment station.
 Carl E. Friend, B. S., Soldier, Kan. Banker.
 John R. Harrison, B. S., Salina, Kan. Inspector of post-offices.
 Humphrey W. Jones, B. S., Alma, Kan. Principal of schools.
 Nathan E. Lewis, B. S., Bridgeport, Conn. Mechanical engineer.
 Abbie L. Marlatt, M. S., Providence, R. I. Teacher of domestic science, manual training school.
 William C. Moore, B. S., Junction City, Kan. Editor and publisher.
 Ernest F. Nichols, B. S., Hamilton, N. Y. Professor of physics, Colgate University.
 Harry E. Robb, B. S., Eureka, Kan. Farmer and county surveyor.
 Anna Snyder, B. S., Emporia, Kan. Student, State Normal School.
 Edwin H. Snyder, B. S., Highlands, Colo. Editor.
 Oliver L. Utter, B. S., Boston, Mass. Minister.
 Aaron Walters, B. S. Died in 1892.
 Lora L. Waters, M. S., Manhattan, Kan. Teacher.
 Daniel W. Working, jr., B. S., Denver, Colo. Editor.

1889.

Emma A. Allen, B. S. Died in 1891.
 Joseph W. Bayles, B. S., Auburn, Kan. Minister.
 Walter R. Browning, B. S., Padonia, Kan. Grain dealer.
 David E. Bundy, B. S., Leavenworth, Kan. Minister.
 Samuel S. Cobb, B. S., Wagoner, I. T. Cattle dealer.
 Judson H. Criswell, B. S., Manhattan, Kan. Farmer.
 Mattie I. (Farley) Carr, B. S., Winthrop, Wash. Housewife.
 Clarence E. Freeman, M. S., Chicago, Ill. Special student in electricity, Armour Institute.
 Hattie L. (Gale) Sanders, B. S., Mangona, Fla. Housewife.
 John S. Hazen, B. S., Des Moines, Iowa. United States weather bureau observer.
 Albert B. Kimball, B. S., Scandia, Kan. Editor and postmaster.
 William Knabb, B. S., Hiawatha, Kan. Bank clerk.
 Mary C. Lee, B. S., Lawrence, Kan. Student, State University.
 Alonzo A. Mills, B. S., Kamas, Utah. Manager of creamery.
 Susan W. Nichols, B. S., St. Joseph, Mo. Music teacher.
 Walter H. Olin, M. S., Ottawa, Kan. Superintendent of schools.
 Eli M. Paddleford, B. S., Boston, Mass. Minister.
 Maude F. Sayers, B. S., Ottawa, Kan. Bookkeeper.
 Florine (Secrest) Linderman, Willow Glen, San Jose, Cal. Housewife.
 Stanley Snyder, B. S., Oskaloosa, Kan. Farmer.
 Charles W. Thompson, B. S., Holton, Kan. Dentist.
 Jane C. Tunnell, B. S., Mt. Carroll, Ill. Teacher.

Ina M. (Turner) Bruce, B. S., St. Louis, Mo. Housewife.
 Robert U. Waldraven, B. S., Rosedale, Kan. Minister.
 Henry S. Willard, B. S., M. D., Manhattan, Kan. Physician and druggist.

1890.

Samuel I. Borton, B. S., Virgil, Kan. Teacher.
 Frank A. Campbell, B. S., Highlands, Colo. Reporter.
 Arthur F. Cranston, B. S., Parsons, Kan. Lawyer.
 John Davis, B. S., Blackwell, O. T. Teacher.
 Grant W. Dewey, B. S., Manhattan, Kan. Photographer.
 Charles J. Dobbs, B. S., Topeka, Kan. Lawyer.
 Charles W. Earle, B. S., Denver, Colo. Advertising agent.
 Schuyler C. Harner, B. S., Lasita, Kan. Teacher and farmer.
 John W. Ijams, B. S., Orlando, O. T. Teacher.
 Bertha S. (Kimball) Dickens, M. S., Bushton, Kan. Housewife.
 Harriet E. (Knipe) Curtis, B. S., Elgin, Ill. Housewife.
 Nellie P. (Little) Dobbs, B. S., Topeka, Kan. Housewife.
 Ellsworth Thomas Martin, B. S., LL. B., Chicago, Ill. Lawyer.
 Silas C. Mason, M. S., Berea, Ky. Professor of horticulture and biology, Berea College.
 Wilton L. Morse, B. S., Mancos, Colo. Farmer.
 Albert E. Newman, B. S., Watonga, O. T. County superintendent and editor.
 Julia R. Pearce, B. S., San Francisco, Cal. Journalist.
 Emil C. Pfuetze, B. S., Burlington, Kan. Superintendent of water-works.
 William H. Sanders, B. S., Mangona, Fla. Plumber and builder.
 Emma Secrest, B. S. Died in 1898.
 Marie Barbara Senn, M. S., Fargo, N. D. Instructor in domestic economy, State Agricultural College.
 Ralph Snyder, B. S., Oskaloosa, Kan. Farmer and teacher.
 George E. Stoker, B. S., A. B., Topeka, Kan. Lawyer.
 Walter T. Swingle, M. S. Travelling in Europe for division of vegetable pathology, U. S. department of agriculture.
 Gilbert J. Van Zile, B. S., Carthage, Ill. Lawyer.
 Harry N. Whitford, B. S. Chicago, Ill. Student in University of Chicago.
 Thomas E. Wimer, B. S. Died in 1890.

1891.

William Aaron Anderson, Leonardville, Kan. Bookkeeper.
 William Sherman Arbuthnot, B. S., D. V. S., Republic, Kan. Veterinary surgeon and druggist.
 Herman William Avery, B. S., Wakefield, Kan. Farmer and merchant.
 Judd Noble Bridgman, M. S., Atchison, Kan. Bicycle dealer.
 Robert James Brock, B. S., Manhattan, Kan. Lawyer.
 Francis Charles Burtis, M. S., Manhattan, Kan. Assistant in agriculture, Experiment Station, Kansas State Agricultural College.
 Charles Albert Campbell, B. S., Providence, R. I. Minister.
 Spencer Norman Chaffee, B. S., Riley, Kan. Teacher.
 Ephraim Clay Coburn, B. S., Kansas City, Kan. Student of medicine.
 Gertrude Coburn, B. S., Ames, Iowa. Professor of household economy, Iowa State Agricultural College.
 Tina Louise Coburn, B. S., Topeka, Kan. Clerk in office of secretary of the state board of agriculture.
 Rachel Callie (Conwell) Thoburn, B. S., Denver, Colo. Housewife.
 Christine Mossman Corlett, B. S., Guthrie, O. T. Teacher.
 Mary Emmeline (Cottrell) Payne, M. S., Cheyenne Wells, Colo. Housewife.
 Phil Sheridan Creager, B. S., Kansas City, Mo. Editor.
 Kary Cadmus Davis, B. S., Austin, Minn. Principal state high school.
 Thomas Clarke Davis, B. S., Benedict, Kan. Farmer and member of legislature.
 Helen Pearl (Dow) Peck, B. S., 758 Jefferson avenue, Brooklyn, N. Y. Housewife.
 Anna (Fairchild) White, B. S., Cambridge, Mass. Housewife.
 Harry Benson Gilstrap, B. S., Chandler, O. T. Editor and publisher.
 Almon Arthur Gist, B. S., Fort Riley, Kan. Telegraph operator and station agent.
 Amy Myrtle Harrington, B. S., Manhattan, Kan. Teacher.
 Delpha May Hoop, B. S., Manhattan, Kan. Teacher.
 Mayme Amelia (Houghton) Brock, B. S., Manhattan, Kan. Housewife.
 Willis Wesley Hutto, B. S., Manhattan, Kan. Teacher.
 George Victor Johnson, B. S., Sedan, Kan. Editor.
 Frank Mullett Linscott, B. S., D. V. S., Holton, Kan. Stock-raiser.

Bessie Belle Little, B. S., Topeka, Kan. Teacher of physical culture.
 Albert Edward Martin, B. S., Streator, Ill. Manager telephone company.
 Nellie Evangeline (McDonald) Thayer, B. S., Lawrence, Kan. Housewife.
 David Collins McDowell, B. S., Cripple Creek, Colo. Miner.
 Alfred Midgley, B. S., Minneapolis, Kan. Clerk.
 Madeleine Wade Milner, B. S., Chicago, Ill. Assistant librarian, Armour Institute.
 Paul Chambers Milner, B. S., Chicago, Ill. Assistant exchange teller, Illinois Trust and Savings Bank.
 Harry Elbridge Moore, B. S., Kansas City, Mo. Commission merchant.
 John Otis Morse, B. S., Mound City, Kan. Farmer and teacher.
 Hattie May Noyes, B. S., Wabaunsee, Kan. Teacher.
 Louise Reed, B. S., San Diego, Cal. Principal of kindergarten.
 Artemus Jackson Rudy, B. S., Fresno, Cal. Fruit-raiser.
 Henry Vernon Rudy, B. S., Fresno, Cal. Fruit-raiser.
 Charlotte Jane Short, M. S., Manhattan, Kan. Assistant in household economics, Kansas State Agricultural College.
 Ben Skinner, B. S., M. D., Granada, Kan. Physician.
 Caroline Scott (Stingley) Van Blarcom, B. S., Kansas City, Kan. Housewife.
 Lillian Alice St. John, B. S., Manhattan, Kan. Teacher.
 Ellis Cheney Thayer, B. S., Lawrence, Kan. Teacher, Haskell Institute.
 Sam L. Van Blarcom, B. S., Kansas City, Kan. Railway postal clerk.
 Frank Albert Vaughn, M. S., Burlington, Vt. Professor of horticulture in Vermont University.
 Fannie Elizabeth (Vaughn) Davis, B. S., Austin, Minn. Housewife.
 Flora Emilie Wiest, B. S., Manhattan, Kan. Teacher.
 Bertha (Winchip) Spilman, B. S., Washington, D. C. Housewife.
 Alfred Orin Wright, B. S., Lake Arthur, La. Editor.
 Effie Jeanetta Zimmerman, M. S., Moray, Kan. At home.

1892.

Grace Maria Clark, M. S., Manhattan, Kan. At home.
 George L. Clothier, B. S., Manhattan, Kan. Assistant in botany, Experiment Station, Kansas State Agricultural College.
 Lillian Clyde Criner, B. S., McPherson, Kan. Soldier, Kansas volunteers.
 Harry Darnell, B. S., Gardner, Kan. Teacher.
 William H. Edelblute, B. S., Manhattan, Kan. Farmer.
 Elizabeth Edwards, B. S., Randolph, Kan. Teacher.
 John Frost, B. S., Blue Rapids, Kan. Teacher.
 Effie (Gilstrap) Frazier, B. S., Chandler, O. T. Editor and publisher.
 Ava (Hamill) Tillotson, B. S., Hill City, Kan. Housewife, and postgraduate student, Kansas State Agricultural College.
 J N Harner, B. S. Died in 1897.
 Loyall S. Harner, B. S., Junction City, Kan. Farmer.
 Charles Pinckney Hartley, B. S., Manhattan, Kan. Postgraduate student and instructor, Kansas State Agricultural College.
 John William Abraham Hartley, B. S., Manhattan, Kan. Teacher.
 James Laird McDowell, B. S., Cripple Creek, Colo. Miner.
 Robert A. McIlvaine, B. S., Emporia, Kan. Student, State Normal School.
 Kate (Oldham) Sisson, B. S., Chicago, Ill. Housewife.
 Daniel Henry Otis, M. S., Manhattan, Kan. Assistant in agriculture, Experiment Station, Kansas State Agricultural College.
 Ivan Bryan Parker, B. S., M. D., Hill City, Kan. Physician.
 Warner S. Pope, B. S., Kansas City, Kan. Lawyer.
 Burton Homer Pugh, B. S., Oakland, Kan. Farmer.
 Elias W. Reed, B. S., Avoca, Kan. Farmer.
 Robert Stirling Reed, B. S., Emporia, Kan. Student, State Normal School.
 Arthur Daniel Rice, B. S., Lamar, Colo. Minister.
 Fred. C. Sears, M. S., Wolfville, Nova Scotia. Director of provincial school of horticulture.
 Birdie E. Secrest, B. S., Randolph, Kan. Clerk.
 May Secrest, B. S., San Francisco, Cal. Teacher, postgraduate student, and student artist.
 Ruth Tipton (Stokes) Sears, M. S., Wolfville, Nova Scotia. Housewife.
 Harry W. Stone, B. S., Portland, Ore. General secretary Y. M. C. A.
 Walter Percival Tucker, B. S., Ben Davis, Ind. Student.
 Mary Alice (Vail) Vaughn, B. S., Burlington, Vt. Housewife.
 Robert Lynn Wallis, B. S. Died in 1895.
 Ora Rebecca (Wells) Traxler, B. S., Waterville, Kan. Housewife.

Daniel F. Wickman, B. S., Topeka, Kan. Market-gardener and clerk in Santa Fe offices.
 George Washington Wildin, B. S., Topeka, Kan. In Santa Fe shops.
 Charles Ernest Yeoman, B. S., La Crosse, Kan.

1893.

Edmund Clarence Abbott, B. S., Trinidad, Colo. Lawyer.
 Edwin McMaster Stanton Curtis, B. S., Detroit, Mich. Clerk in railroad office.
 Corinne Louise (Daly) Burtis, B. S., Manhattan, Kan. Housewife.
 Laura Greeley Day, B. S., Menominee, Wis. Instructor in household economy, Stout Manual Training School.
 Ione (Dewey) Sutherland, B. S., Manhattan, Kan. Housewife.
 Albert Dickens, B. S., Bushton, Kan. Teacher.
 Mary Maud Gardiner, M. S., Manhattan, Kan. Dressmaking.
 Susie (Hall) Linscott, B. S., Holton, Kan. Housewife.
 Mary Frances Burgoyne Harman, B. S., Olathe, Kan. Teacher, deaf and dumb asylum.
 Ivy Frances Harner, M. S., Ruston, La. Teacher of domestic economy, Louisiana State Institute.
 Margaretha Elise Horn, B. S., Dr. O., Detroit, Mich. Teacher of sciences, Detroit high school.
 Marcia Ione Hulett, B. S., Kirksville, Mo. Student, school of osteopathy.
 Mac F. Hulett, B. S., Kirksville, Mo. Teacher, school of osteopathy.
 Fred Hulse, B. S., Manhattan, Kan. Teamster, Kansas State Agricultural College farm.
 Charles Augustus Kimball, B. S., Scandia, Kan. Publisher.
 Maud Ethel Knickerbocker, B. S., Terraville, S. D. Teacher.
 Thomas Eddy Lyon, B. S., Ann Arbor. Student of law.
 William Otis Lyon, B. S., Emporia, Kan. Teacher.
 McLeod Wilson McCrea, B. S., Bostwick, Neb. Teacher.
 Rose Edith McDowell, B. S., Manhattan, Kan. At home.
 George Lane Melton, B. S., Winfield, Kan. Insurance and loan agent.
 Eusebia DeLong Mudge, B. S., Eskridge, Kan. Bookkeeper.
 Nora (Newell) Hatch, B. S., Manhattan, Kan. Housewife.
 August Fred. Niemoller, B. S., Stitt, Kan. Teacher.
 Susie Amanda Noyes, B. S. Died in 1894.
 Henry Leamer Pellett, B. S., Kirksville, Mo. Student, school of osteopathy.
 Charles John Peterson, B. S., Randolph, Kan. Teacher.
 Carl Frederic Pfuetze, B. S., Kansas City, Mo. Railway postal clerk.
 John Dewitt Riddell, B. S., M. D., Enterprise, Kan. Physician.
 John Albert Rokes, B. S., Holton, Kan. Lawyer.
 Agnes (Romick) Edgar, B. S., Halford, Kan. Housewife.
 Fred. Raymond Smith, B. S., Manhattan, Kan. Lawyer.
 George Wildman Smith, B. S., Minneapolis, Kan. Principal of high school.
 William Elmer Smith, B. S., Manhattan, Kan. Teacher.
 John Eugene Thackrey, B. S., Chapman, Kan. Minister.
 Joseph B. Thoburn, B. S., Denver, Colo. Irrigation farmer and horticulturist.
 Charles Henry Thompson, Columbia, Mo. Instructor in botany, State University.
 George K. Thompson, B. S., Blue Rapids, Kan. Editor.
 William James Yeoman, B. S., Kinsley, Kan. Principal of schools.

1894.

Frank Weber Ames, B. S., Chicago, Ill. Life insurance.
 Clara Francelia Castle, M. S., Manhattan, Kan. At home.
 George Linther Christensen, B. S., Providence, R. I. Manufacturer.
 John Cornelius Christensen, B. S., Mariadahl, Kan. Farmer.
 Lorena Estella Clemons, B. S., Manhattan, Kan. Clerk in Secretary's office, Kansas State Agricultural College.
 Martha Cottrell, B. S., Wabaunsee, Kan. At home.
 Sarah Esther (Cottrell) Wright, B. S., Jennings, La. Housewife.
 Alverta May Cress, B. S., Manhattan, Kan. Clerk in office of register of deeds.
 Fannie Jane Cress, B. S., Dayton, Ohio. Teacher.
 Ernest A. Donaven, B. S., M. D., Goodrich, Kan. Physician.
 Jephthah W. Evans, B. S., Junction City, Kan. Teacher high school.
 Isabelle Russell Frisbie, B. S., Brookings, S. D. Professor of domestic economy, State Agricultural College.
 Eugene Leonard Frowe, B. S. Died in 1898.
 Walter Harling, B. S., Echo, Utah. Teacher.
 Lorena Margnerite Helder, B. S., Manhattan, Kan. Assistant in music, Kansas State Agricultural College.

Mark V. Hester, B. S., Lawrence, Kan. Student, State University.
 Charles Ross Hutchings, B. S., Pomona, Kan. County surveyor.
 Isaac Jones, jr., B. S. Klondike, Alaska. Miner.
 Stella Victoria Kimhall, B. S., Manhattan, Kan. Teacher.
 Mary Eliza Lyman, B. S., Peoria, Ill. Assistant in household economy, Bradley Polytechnic Institute.
 William Henry Moore, B. S., Manhattan, Kan. Horticulturist and postgraduate student, Kansas State Agricultural College.
 Sarah (Moore) Foster, B. S., Mont Ida, Kan. Housewife.
 James Francis Odle, B. S., Monaca, Pa. Superintendent dairy farm.
 Charles Randolph Pearson, B. S., Hoxie, Kan. Teacher.
 Horace Greeley Pope, B. S., Kansas City, Mo. Lawyer.
 Minnie Louisa Romick, B. S., Niles, Kan. Teacher.
 Winnie Luella (Romick) Chandler, B. S., Argentine, Kan. Housewife.
 Victor Irvin Sandt, B. S., Home, Kan. Teacher.
 John Alfred Scheel, B. S., Klondike, Alaska. Miner.
 Jacob Ulrich Secrest, B. S., Randolph, Kan. Farmer.
 Charles Chrisfield Smith, B. S., Wahaunsee, Kan. Principal of schools.
 Jennie Ruth Smith, B. S., Topeka, Kan. Student, Washburn College.
 Wesley Ohio Staver, B. S., Kansas City, Mo. Lawyer.
 John Stingley, B. S., Olathe, Kan. Teacher, deaf and dumb asylum.
 John Edwin Taylor, B. S. Died in 1896.
 Delbert L. Timbers, B. S., Beloit, Kan. Teacher.
 Phebe Carey Turner, B. S., Maple Hill, Kan. Teacher.
 Samuel Robert Vincent, B. S., Manhattan, Kan. Postgraduate student and student assistant, Kansas State Agricultural College.
 Lucy Helena Waters, B. S., Manhattan, Kan. Teacher.

1893.

Edward Jones Ahell, B. S., Smith Center, Kan. Principal of schools.
 Carl D. Adams, B. S., Olathe, Kan. Teacher, asylum for deaf and dumb.
 Robert John Barnett, B. S., Leonardville, Kan. Teacher.
 Burton Wesley Conrad, B. S., Capioma, Kan. Farmer.
 Florence Ruth Corbett, B. S., Manhattan, Kan. Postgraduate student and assistant.
 Sid Henry Creager, B. S., Kansas City, Mo. Journalist.
 Elsie Emeline Crump, B. S., Manhattan, Kan. Teacher.
 David Thomas Davies, B. S., Manhattan, Kan. Farmer.
 Frank Andrew Dawley, B. S., Waldo, Kan. County clerk.
 Daisy Day, M. S., Manhattan, Kan. At home.
 Flora Day, B. S., Manhattan, Kan. At home.
 George Adam Dean, B. S., Topeka, Kan. Farmer.
 Lillie Christena Dial, B. S., Cleburne, Kan. Teacher.
 Lucy Ellis, B. S., Topeka, Kan. Teacher.
 Victor Emrick, B. S., Portland, Ore. Teacher.
 George Forsyth, B. S., Franklin, Ind. Agent.
 Ernest Harrison Freeman, B. S., Topeka, Kan.
 Florence Eleanor Fryhofer, B. S., Randolph, Kan. At home.
 George William Fryhofer, B. S., Chicago, Ill. Student, Kent Law School.
 Oscar Hugo Halstead, B. S., ———, Sweden. Special student.
 Hortensia (Harman) Patten, B. S., Sycamore, Ill. Housewife.
 John Bright Harman, Valley Falls, Kan. Farmer.
 Clarence V. Holsinger, B. S., Rosedale, Kan. Fruit-raiser.
 Christian Andrick Johnson, B. S., St. Louis, Mo. Medical student.
 John James Johnson, B. S., St. Louis, Mo. Medical student.
 Fred. Ralph Jolly, B. S., Manhattan, Kan. Newspaper reporter.
 William Irvin Joss, B. S., Fairview, Kan. Teacher.
 Maud Estella Kennett, B. S., Silver Lake, Kan. Teacher.
 Myron Arthur Limhocker, B. S., Kansas City, Kan. Lawyer.
 Samuel Alexander McDowell, B. S., Manhattan, Kan. Clerk.
 Laura Sarah (McKeen) Smith, B. S., Russell, Kan. Housewife.
 Theo. Wattles Morse, M. S., Kansas City, Mo. Journalist.
 Oscar Albert Otten, B. S., Pierce Junction, Kan. Telegraph operator.
 William Hackworth Painter, B. S., Meade, Kan. Farmer.
 Charles Wesley Pape, B. S., Manhattan, Kan. Assistant in zoology, Kansas State Agricultural College.
 Ethel Patten, B. S., Silver Lake, Kan. Teacher.

John Vernon Patten, B. S., Sycamore, Ill. Manufacturer.
 William H. Phipps, B. S., Belleville, Kan. Manager creamery.
 Alice Julia (Quintard) Peck, B. S., Dallas, Texas. Housewife.
 Frederick Ellsworth Rader, B. S., Manhattan, Kan. Teacher.
 Ralph Waldo Rader, B. S., Manhattan, Kan. Farmer.
 Ada Rice, B. S., Randolph, Kan. Teacher.
 Benjamin Franklin Simeon Royer, B. S., St. Joseph, Mo. Physician.
 Charles Baxter Selby, B. S., Marion, Va. Lawyer.
 Mabel Gertrude Selby, B. S., Enid, O. T. Teacher.
 Ernest P. Smith, B. S., Belleville, Kan. Creamery.
 Frederick John Smith, B. S., Russell, Kan. Editor.
 Kitty Myrtle Smith, B. S., Manhattan, Kan. At home.
 Marietta Smith, B. S., Topeka, Kan. Student, Washburn College.
 William Henry Steuart, B. S., Victor, Colo. Mining engineer.
 Cora Idella Stump, B. S., Manhattan, Kan. Teacher.
 Dora (Thompson) Winter, B. S., Blue Rapids, Kan. Housewife.
 Elven Creveling Tremhly, B. S., Comiskey, Kan. Farmer.
 George Carpenter Wheeler, B. S., Boston, Mass. Railroad conductor.
 Mary Elizabeth (Willard) Emrick, B. S., Portland, Ore. Housewife.
 Olive Mahel (Wilson) Holsinger, B. S., Rosedale, Kan. Housewife.
 Ora Gertrude Yenawine, B. S., Manhattan, Kan. Postgraduate student.

1896.

May Haines Bowen, B. S., Topeka, Kan. Student, Washburn College.
 Con Morrison Buck, B. S., Manhattan, Kan. Postgraduate student and assistant in graphics, Kansas State Agricultural College.
 Margaret Isaphene (Carlton) Doane, B. S., Milwaukee, Wis. Housewife.
 William Annesley Cavanaugh, B. S., Fort Leavenworth, Kan. In United States army.
 William Arthur Coe, B. S., Coloma, Kan. Farmer.
 Charlotte Mabel (Cotton) Smith, B. S., Belleville, Kan. Housewife.
 Ernest Brown Coulson, B. S., Anthony, Kan. Deputy in county clerk's office.
 George Henry Dial, B. S., Cleburne, Kan. Teacher and farmer.
 Charles Francis Doane, B. S., Milwaukee, Wis. Agricultural editor.
 John Berthold Dorman, B. S., Greenfield, N. Y. Teacher.
 Bradford Dougherty, B. S., Kansas City, Kan. Collector.
 Charles Silar Evans, B. S., La Junta, Colo. Hospital steward.
 Robert Kilby Farrar, B. S., Axtell, Kan. Teacher.
 George William Finley, B. S., Manhattan, Kan. Teacher.
 Joanna Freeman, B. S. Died in 1897.
 John Jacob Fryhofer, B. S., Randolph, Kan. Farmer.
 Elmer George Gibson, B. S., Willard, Kan. Teacher.
 George Clifton Hall, B. S., Manhattan, Kan. Teacher and law student.
 Alonzo Charles Havens, B. S., Dwight, Kan. Farmer.
 Gertrude Julia (Havens) Norton, B. S., St. Louis, Mo. Housewife.
 Lawrence Wilbur Hayes, B. S., Topeka, Kan. Attendant, asylum for insane.
 John Warren Holland, B. S., Pocatello, Idaho.
 Henry George Johnson, B. S., Chicago, Ill. Student in dentistry.
 Susan Effie (Johnson) Cooper, B. S., Success, Kan. Housewife.
 Marion Elizabeth Jones, B. S., Manhattan, Kan. Teacher.
 Thomas Lormar Jones, B. S., Manhattan, Kan. Farmer.
 Edward Clarence Joss, B. S., Fairview, Kan. Merchant.
 Royal S. Kellogg, B. S., Manhattan, Kan. Postgraduate assistant.
 Mark Kirkpatrick, B. S., Antlers, I. T. Army officer.
 Edith Lynette Lantz, B. S., Manhattan, Kan. Postgraduate student, Kansas State Agricultural College.
 Sue Long, B. S., Manhattan, Kan. Local editor.
 Charles W. Lyman, B. S., Junction City, Kan. Merchant.
 Charles Dwin McCauley, B. S., Topeka, Kan. Farmer.
 Charles Sumner Marty, B. S., Merriam, Kan. Farmer.
 Mrs. Elda Lenore Moore, B. S., Manhattan, Kan. Housewife.
 Arthur Houston Morgan, B. S., Hillside, Kan. Farmer and teacher.
 Clara Verena Newell, B. S., Manhattan, Kan. Clerk.
 Ellen Elizabeth Norton, B. S., Manhattan, Kan. At home.
 John Biting Smith Norton, B. S., St. Louis, Mo. Assistant in Missouri botanical garden.
 Hattie A. Paddleford, B. S., Randolph, Kan. Teacher.

Mary Kerilla Painter, B. S., Meade, Kan. Teacher.
 Elva Luthera (Palmer) Thackrey, B. S., Chapman, Kan. Housewife.
 Inez Luella (Palmer) Barrows, B. S., Washington, Kan. Housewife.
 Fannie Parkinson, B. S., Pomona, Kan. Teacher.
 Archie Carpenter Peck, B. S., Dallas, Tex. Manager and proprietor of cotton-gin.
 Arthur Louis Peter, B. S., Denver, Colo. Student, medical college.
 Charles Edwin Pincomb, B. S., Hector, Kan. Farmer.
 Mary Josephine Pincomb, B. S., Hector, Kan. At home.
 John Poole, B. S., Briggs, Kan. Farmer.
 Edgar Arthur Powell, B. S., Osage City, Kan. Farmer.
 Lisle Willets Pursel, B. S. Postgraduate student, Kansas State Agricultural College.
 Howard Newton Rhodes, B. S., Manhattan, Kan. Postgraduate student, Kansas State Agricultural College.
 Ambrose Elliott Ridenour, B. S., Manhattan, Kan. Student of law.
 Mary Etta Ridenour, B. S., Manhattan, Kan. At home.
 Isaac Archie Robertson, B. S., St. Louis, Mo. Railroad clerk.
 Grace Anna Secrest, B. S., Randolph, Kan. Teacher.
 Carl Snyder, B. S., Oskaloosa, Kan. Farmer.
 Max Gilbert Spalding, B. S., Wichita, Kan. Packing-house.
 Orville Ashford Stingley, B. S., Manhattan, Kan. Laundry.
 Sadie Stingley, B. S., Manhattan, Kan. Teacher.
 Gertrude Ella Stump, B. S., Manhattan, Kan. At home.
 Miriam Esther Swingle, B. S., Washington, D. C. Student.
 William Elwood Thackrey, B. S., Moffat, Colo. Stock-raiser.
 James Dunbar Trumbull, B. S., Manhattan, Kan. Clerk.
 Frank Edwin Uhl, B. S., Gardner, Kan. Farmer.
 Edwin H. Webster, B. S., Denver, Colo. Teacher of mechanical industry.

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Cora Atwell, B. S., Manhattan, Kan. Teacher.
 Roger William Bishoff, B. S., Eudora, Kan. Farmer.
 Mary Frances Carnell, B. S., Bunker Hill, Kan. At home.
 William Burns Chase, B. S., Hoyt, Kan. Merchant.
 Frank E. Cheadle, B. S., Erwin, O. T. Farmer.
 Robert Waitman Clothier, B. S., Manhattan, Kan. Postgraduate student and assistant in chemistry, Kansas State Agricultural College.
 Maggie A. (Correll) Uhl, B. S., Gardner, Kan. Housewife.
 Mabel Crump, B. S., Manhattan, Kan. Telephone operator.
 Fred Volley Dial, B. S., Cleburne, Kan. Clerk.
 Viola Grace Dille, B. S., Edgerton, Kan. Teacher.
 Samuel Dolby, B. S., Longford, Kan. Postgraduate student, Kansas State Agricultural College, and farmer.
 George Doll, B. S., Larned, Kan. Teacher.
 Anna Phillipina Engel, B. S., Manhattan, Kan. At home.
 Emma Finley, B. S., Emporia, Kan. Student, State Normal School.
 Martha Fox, B. S., Manhattan, Kan. At home.
 Philip Fox, B. S., Manhattan, Kan. Postgraduate student and student assistant, Kansas State Agricultural College.
 Ned Merrill Green, B. S., Kansas City, Mo. Soldier, Missouri volunteers.
 Mary Eliza Haulenbeck, B. S., Manhattan, Kan. At home.
 Lewellyn Gaines Hepworth, B. S., Burlington, Kan. Teacher and farmer.
 Ina Emma Holroyd, B. S., Emporia, Kan. Student, State Normal School.
 Myrtle Hattie Hood, B. S., Manhattan, Kan. At home.
 Charles Henry Hoop, B. S., Manhattan, Kan. Clerk.
 Winfred Anna Houghton, B. S., Manhattan, Kan. Teacher.
 Bret Redmon Hull, B. S., Alta Vista, Kan. Lumber dealer.
 Clay Berkey Ingman, B. S., Barnes, Kan. Farmer.
 Gertrude May Lyman, B. S., Manhattan, Kan. Teacher.
 Frederick Hugo Meyer, B. S., Madison, Wis. Student, Rose Polytechnic Institute.
 Valentine Maelzer, B. S., Neuchatel, Kan. Farmer.
 Sherman Bodwell Newell, B. S., Zeandale, Kan. Teacher and farmer.
 Oliver Ezra Noble, B. S., Manhattan, Kan. County surveyor, and postgraduate student, Kansas State Agricultural College.
 Jesse Baker Norton, B. S., Manhattan, Kan. Postgraduate student, Kansas State Agricultural College.

Mary Augusta Norton, B. S., Manhattan, Kan. Postgraduate student, Kansas State Agricultural College.
 Bertha Olivia Olson, B. S., Manhattan, Kan. At home.
 Hilda Sophia Olson, B. S., Manhattan, Kan. At home.
 Russell John Peck, B. S., Dallas, Tex.
 William Oscar Peterson, B. S., Randolph, Kan. Teacher.
 Eva Louise Philbrook, B. S., Emporia, Kan. Student, State Normal School.
 Rufus M. Philbrook, B. S., Emporia, Kan. Student, State Normal School.
 William Joseph Rhoades, B. S., Kansas City, Kan. Greenhouse.
 Carl Rice, B. S., Manhattan, Kan.
 Thomas Meade Robertson, B. S., Kansas City, Mo. Journalist.
 Homer Joseph Robison, B. S., Topeka, Kan. Machinist.
 Edward Shellenbaum, B. S., Randolph, Kan. Teacher.
 Alice Myrtle Shofe, B. S., Manhattan, Kan. Postgraduate student, Kansas State Agricultural College.
 Charles Wesley Shnell, B. S., Manhattan, Kan. Teacher.
 Alfred Caleb Smith, B. S., Berkeley, Cal. Student, State University.
 Phoebe Jane Smith, B. S., Emporia, Kan. Student, State Normal School.
 Wilhelmina Henrietta Spohr, B. S., Manhattan, Kan. Teacher.
 Charles Harrison Stokely, B. S., Burlingame, Kan. Teacher.
 John E. Trembly, B. S., Comiskey, Kan. Farmer.
 Harriet Agnes Vandivert, B. S., Bethany, Mo. At home.
 Olive Voiles, B. S., Manhattan, Kan. At home.
 John Minton Westgate, B. S., Westgate, Kan. Postgraduate student and student assistant, Kansas State Agricultural College.
 Mark Wheeler, B. S., Lawrence, Kan. Student, State University.
 Clare Annie Wilson, B. S., Mapleton, Kan. Teacher.

SUMMARY.

The number of graduates up to 1898 is 574, of whom 200 are women. Graduates previous to 1877 pursued, with two exceptions, a classical course, and received the degree of bachelor of arts. Since 1877, all have received the degree of bachelor of science, after a four years' course in the sciences, with good English training.

Of the 374 men, 10 are deceased, and the remainder are reported in the following occupations:

Farmers and stock-raisers	62
Fruit-growers, nurserymen, and gardeners	11
Professors and instructors in agricultural colleges	8
President of polytechnic institute	1
College professors not otherwise classified	2
Superintendent of agricultural experiment station	1
Assistants in agricultural experiment stations	5
In United States department of agriculture	3
Assistant in botanical garden	1
In military service	6
In United States government civil service	6
Teachers and students of special sciences	5
Superintendents of public schools	14
Teachers in public schools	55
Teachers in Indian schools	3
Postgraduate students in K. S. A. C.	13
Students in other institutions	9
Mechanics	8
Journalists	27
Ministers and secretary of Y. M. C. A.	13
Physicians and students of medicine, druggists, and dentists	17
Lawyers and students of law	30
Civil, electrical, mining and mechanical engineers	8
Architects and builders	4
Other professional men	3
Manufacturers	11

Merchants	21
Bankers.....	4
General business men	15
Telegraph operators and railroad agents.....	6
Officials and official clerks.....	12
Miners	6
Unknown	6
Total.....	396
In two occupations.....	32
	364

Of the 200 women, 7 are deceased, and the remainder occupied as follows:

Housewives.....	73
At home.....	23
Teachers of household economy	11
Teachers in public schools.....	40
Teachers and students of special sciences.....	5
Teachers of art and music	5
Bookkeepers, stenographers, and clerks.....	10
Milliners and dressmakers.....	3
Librarians.....	1
Nurses.....	2
Postgraduates in K. S. A. C.....	8
Students in other institutions.....	9
Journalists	3
Unknown	1
Total.....	194
In two occupations.....	1
	193

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